## **Amendment -II**

Project: Supply, Installation, Testing & Commissioning of Modular Operation Theatres (MOTs) and Mid End Modular Operation Theatres at PGI Satellite Centre for PGIMER at Village Ghabdan, Sangrur

Tender No : HSCC/SES/MOT /PGI/SANGRUR/2020 Date : 14.02.2020

This has reference to above IFB.

The following Amendment may be noted which shall be treated as part of the tender document and to be submitted duly signed & stamp along with tender.

Sr. No.	Bidders' Queries	Reply
1.	Volume-I, Page no. 3, Period of Completion: 5 Months	Tender terms & conditions prevail.
	We request the period of completion should be 6 months after approval of drawings. You would appreciate that quantum of this Project is large and arranging quantity of material takes time and resources. This is not mere supply of equipments items like Surgeon Control Panel, Pendants Anaesthesia & Surgeon, OT Light (LED) with Camera etc are imported items for which procurement only starts after approval of final drawing which is a time consuming process.	
	We hereby request to kindly increase the completion schedule to 5 months.	
2.	Volume-I, Pre-Qualification Criteria; Page no. 5 & 6, Clause no. 2.2	Tender terms & conditions prevail.
	(ii) Experience of having successfully completed similar work during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following :	
	Three similar* completed works costing not less than the amount equal to 40% of the estimated cost.	
	Two similar* completed works costing not less than the amount equal to 50% of the estimated cost.	

or One similar* completed work costing not less than the amount equal to 80% of the estimated cost.	
*Similar nature of works means successful completion of supply, Installation, testing and commissioning of Medical Gas Manifold System in India.	
We request the clause of the tender should be further clarified as following :	
"In case, the qualifying experience certificate is from Private sector/ Charitable Hospital, the vendor should submit the TDS certificate as a proof of having executed the said work."	
We are enclosing herewith the snippets for your kind reference & duly marked at Page no. 1 to 5 from Government Agencies NBCC (India) Ltd. and Project Implementation Unit, Gujarat about the TDS Certificate, which is clearly defined. Please refer to M/s HSCC Shimla Tender clarification papers taking the cognigenze of this and had issued Amendment.	
The TDS certificate should be of same value as supporting document which will prove the authenticity of Private work completed. There should not be any room that any bidder plays with the private works, therefore the TDS Certificate should be made mandatory for the justification of the order value against the experience of similar nature of work.	
Kindly refer to HSCC AIIMS Rajkot Tender Page 3 Sr. 3, Minimum Eligibility Criteria	
"iii) The past experience in similar nature of work should be supported by certificates issued by the client's organisation. In case the work experience is of Private sector the completion certificate shall be supported with copies of Letter of Award and copies of Corresponding TDS Certificates. Value of work will be considered equivalent to the amount of TDS Certificates."	

	We therefore request to kindly clarify regarding	
	private works.	
3.	Common	Tender terms & conditions prevail.
	Performance of the Company	
	We request, to kindly ensure that the bidder who has executed the similar nature of work in	
	Government Hospital through Government	
	Agencies such as M/s HSCC (India) Ltd., M/s	
	HLL Lifecare Ltd, UPRNN, NBCC etc., the	
	performance of the company should be satisfactory.	
4.	Volume-III, SCC, Page no. 12, 12.4 Bid Security,	This clause is only applicable for manufacturing
	Document Fee and EMD are exempted for NSIC registered Firm.	of goods in India and not in the case of procurement of Imported goods
	As you are aware, to promote Micro Small & Medium Enterprise, Government of India had	
	given the facility of NSIC Certification to the manufacturing firm. This may please be noted	
	that this clause is only applicable for manufacturing of goods in India and not for	
	procurement of Imported goods. If we go	
	through the tender Specifications, there are	
	imported items like Medical Air, Medical	
	Vacuum, AGSS/WAGD, Control Panel O2, N2O, CO2, Outlets etc.	
	We request this clause should be suitably	
	amended so that NO Bidder could take undue advantage of NSIC Certification and all the	
	bidders should be treated on single platform.	
	This has been done in earlier HSCC Sangrur,	
	Shimla & Raebareli Tenders.	
5.	Volume-I, Pre-Qualification Criteria; Page no. 5	Tender terms & conditions
	& 6, Clause no. 2.2	prevail.
	Amendment no. V dated 01.03.2019	
	(ii) Experience of having successfully	
	completed similar work during last 7 years	
	ending last day of month previous to the one in which tenders are invited should be either of the	
	following :	
	Three similar* completed works costing not less	
	than the amount equal to 40% of the estimated	

	cost.	
	or	
	Two similar* completed works costing not less	
	than the amount equal to 50% of the estimated	
	cost.	
	or	
	One similar* completed work costing not less	
	than the amount equal to 80% of the estimated	
	cost.	
	*Similar nature of works means successful	
	completion of Supply, Installation, Testing &	
	commissioning of Modular Operation Theatres	
	& AHU.	
	We are surprised you have not included AHU in	
	similar works.	
	Sir based on some in-experienced bidder, you	
	have not included "AHU" from similar work.	
	You would appreciate 25% of the cost of the	
	tender is of AHU. AHU is most important part	
	of MOT. AHU is a central air conditioner	
	station that handles the air that, usually,	
	supplied into the buildings by the ventilation	
	ductwork (connected to the AHU).	
	Therefore for better planning, execution,	
	ducting, co-ordination, completion and after	
	sales service; Single Vendor for MOT & AHU	
	is appropriate, so that there shouldn't be any	
	blame game later on when the fault/problem	
	occurs. It will be the responsibility of single	
	vendor.	
	Please appreciate, Post Graduate Institute is one	
	of India's Premier Government Institute. It will	
	be a hassle free work on being a Single Vendor	
	for MOT & AHU.	
	We therefore correctly request M/a USCC to	
	We therefore earnestly request M/s HSCC to kindly Amend and clarify that "Similar nature	
	kindly Amend and clarify that "Similar nature	
	of works means successful completion of	
	Supply, Installation, Testing & commissioning	
	of Modular Operation Theatres & AHU" or else delete the AHU work from the tender if M/s	
	HSCC do not term it as Similar nature of Work.	
6.		Tender terms & conditions
υ.	Volume-III, Page no. 38 & 39 SCC Clause no.	
	21.0 Terms of Payment	prevail.

For purposes of estimating the contract value of works executed for certificate of payment, the following norms shall be followed:
1) 70% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis.
2) 20% of BOQ contract rates on satisfactory take over certificate by client after erection and installation, testing and commissioning of equipments.
3) 10 % of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client.
We request, the payment terms should be amended as:
<ol> <li>1) 75% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis.</li> <li>2) 20% of BOQ contract rates on satisfactory take over certificate by M/s HSCC after Installation.</li> <li>3) 5% of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client on pro-data basis.</li> </ol>
Please appreciate, as soon as the work order is received, the contractor has to initiate necessary actions for successful execution of the work order. Among the very important, Contractor need to place order to the respective suppliers along with 100% payment because supplier will not wait till the completion of the project. Here it is worthwhile to say that contractor do not get 75% payment as 5% amount gets hold for Security from Running Bill; 1% towards Labour Cess; 10% towards Performance Bank Guarantee, 12% towards GST & in case of delay in supply liquidated damages. After going through all this in the netshell a contractor gets approximately 50% amount at the initial stage. It is just a eye wash that 70% payment will be released on pro-rata basis. Initial payment is the lifeline to the contractors, which gives relief up to some extent.

	With regard to 20% payment, please be noted that commissioning and handing over has no difference. After commissioning by our experience, most of the sites are not ready for handover such as civil work is not complete, hospital staff is not available etc etc. Without any fault of contractor, he need to wait for the payment till the handing over takes place. Therefore this payment should be at the time of erection, installation.	
	You will appreciate GST tax regime has been implemented since 1st July 2017 by Govt. of India. With the implementation of this system vis-a-vis in current payment structure, most of the projects gets delayed or handing over not taken by the Hospital/Institute/Department; because of this the balance payment gets stuck for longer duration. This way the liquidity get blocked and input credit is lost.	
7.	Volume-II, Page 18, GCC Clause 21.0 Insurance of Works and Contractor's Equipment & elsewhere in the tender The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 21.1 (a) to (b), insure:	Tender terms & conditions prevail.
	We request, the insurance of works and contractor's equipment should be upto Final Acceptance Certificate (FAC) only. Please appreciate once all the BOQ Items are received, installed, commissioned & tested before you/end user, the insurance should end here. After FAC, the Defect Liability Period/warranty period starts which is guaranteed by bidder for its performance and against any manufacturing defect. During DLP/ warranty period the bidder shall rectify/replace the equipment without any cost for smooth functioning. In other words, Erection All Risks (EAR) Insurance can be provided upto FAC.	
	So, we request the insurance should be upto Final Acceptance Certificate only and not beyond it.	
8.	Common	Tender terms & conditions prevail.
	Performance of the Company	

9.	We request, to kindly ensure that the bidder who has executed the similar nature of work who has worked in Government Hospital through Government Agencies such as M/s HSCC (India) Ltd., M/s HLL Lifecare Ltd, UPRNN, NBCC etc., the performance of the company should be satisfactory. Page no. 1 & 2, Technical Specification 1. WALL & CEILING SYSTEM: The internal surface of the wall and ceiling of operation theatre should be sprayed with anti-bacterial paint (Factory internal test report to be submitted)	Painting should be done at site.
	We request the painting should be done at site only as during installation, welding needs to be done for joining the panels which leaves spots. To give smooth & smudge free finish, the painting should always done at site.	
10.	Page no. 8 of MOT Specifications Boom Suspension for 26"-32" HD Progressive Scan Flat Panel HD Monitor	The word "Imported" is deleted. One Monitor shall be integrated with OT light and another Monitor shall be
	Sir, you have already asked Monitor at Sr.No. 21 OT LIGHT(LED) WITH CAMERA AND MONITOR- (Imported). The monitor with Boom Suspension leads to duplication. Therefore Monitor should be	fitted with the Surgeon Pendant instead of Boom suspension.
	deleted from Specifications as well as BOQ.	
11.	Page no. 10 of MOT Specifications	21-32 inch wide screen monitor shall be fitted.
	14 DIGITAL DISPLAY PANEL (WORK STATION)-(IMPORTED)	
	We request the Touch Screen should be in the range of 21 to 32 inch wide instead of 29-32 inch wide screen monitor as the standard size of the monitor is 21 to 32 inch with manufacturers.	
12.	Page No.19- SCC	The successful bidder shall furnish Performance security
	<b>Performance Security</b> – The successful bidder shall furnish to the consultant a security in the form of a bank Guarantee from Nationalized / Scheduled bank for an amount of 10 percent of the contract sum	in the form of a bank Guarantee/DD from Nationalized / Scheduled bank for an amount of 5% (Five percent) of the contract sum.

	To be amended as	
	<b>Performance Security</b> – The successful bidder shall furnish to the consultant a security in the form of a bank Guarantee from Nationalized / Scheduled bank for an amount of 5 percent of the contract sum.	
	You are requested you to kindly reduce the performance Security from 10% to 5%, since you are going to deduct retention money @ 10% from Contractor RA Bills as mentioned in clause 60.5 of Volume-II, GCC of Tender documents	
13.	Modular OT	The door and control should comply current IEE
	Doors and Frames	regulations/BS 7971
	The door and control should comply current IEE regulations and BS 7971 standard.	standard/ EN 61000-6-3, EN 61000-6-2.
	The Door and control comply to EN 61000-6-3, EN 61000-6-2 standard.	
	The Door and control comply to EN 61000-6-3, EN 61000-6-2 instead of BS 7971 standard. Kindly amend the same.	
14.	Modular OT	Air tightness 99.99% at a
	Doors and Frames	pressure 75KPa.
	Air tightness 99.99% at a pressure 50	
	To be amended as	
	Air tightness 99.99% at a pressure 75KPa	
	In High Pressure Laminate, Doors shall have Air tightness 99.99% at a pressure 75KPa instead of 100KPa. You are requested to kindly amend the same.	
15.	Modular OT	Door opening handle should
	Doors and Frames	be strong and sturdy and the handle material should be AISI-304 Stainless steel and
	Door opening handle should be strong and sturdy and the handle material should be AISI- 304 Stainless steel and glossy finish.	Glossy/MATT finish.

	To be amended as Door opening handle should be strong and sturdy and the handle material should be AISI- 304 Stainless steel and glossy / MATT finish. The Door handles are provided with MATT finish instead of Glossy Finish. Request you to kindly amend the same accordingly.	
16.	Modular OT	Overall Thickness of Door
	<b>Doors and Frames</b> The thickness of the door core should be 48mm. The top layer on both sides is high Pressure laminate of size 6mm. The overall thickness of the door shutter is 55-60 mm.	should be 55- 60 mm. HPL Layer on both sides should be 4mm each side, i.e total 8 mm.
	To be amended as Overall Thickness of Door should be 55- 60 mm. HPL Layer on both sides should be 4mm each side, i.e total 8 mm.	
	The thickness mentioned of HPL Laminate seems to be company specific. You are requested to amend the same.	
17.	Modular OT Peripheral Light cum Clean Room Luminaries	Peripheral lights - Size-2ft x 2ft / 581mm x 581mm approx.
	Peripheral lights (Size-2ft x 2ft)	
	To be amended as	
	Peripheral lights - Size-2ft x 2ft / 581mm x 581mm approx.	
	The size of Peripheral Light mentioned is specific. Kindly amend the same accordingly.	
18.	Modular OT Peripheral Light cum Clean Room Luminaries	The Non-hygroscopic high glow low power LED based peripheral lights having high quality low wattage LED lighting system and optical
	The Non-hygroscopic high glow low power LED based peripheral lights having high quality	antiglare system for adjustable light distribution.

	low wattage LED lighting system with highly spectacular anodized Aluminum reflectors and optical antiglare system for adjustable light distribution.	
	To be amended as	
	The Non-hygroscopic high glow low power LED based peripheral lights having high quality low wattage LED lighting system and optical antiglare system for adjustable light distribution.	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested to kindly delete the words "anodized Aluminum reflectors" from the technical specifications of tender.	
19.	Modular OT	The reflectors are deleted
	PeripheralLightcumCleanRoomLuminariesThe reflectors should be of high quality,	
	cleanable and non deteriorating.	
	To be deleted	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested to kindly delete this line from tender specifications.	
20.	Modular OT	The medical graded touch
	Surgeon Control Panel	<b>screen</b> typed Control Panel should be 19" -32" medical grade color TFT/LED panel
	The medical graded <b>touch screen</b> typed Control Panel should be 19" -22" medical grade color TFT/LED panel stationed in the sterile field.	stationed in the sterile field.
	To be amended as	
	The medical graded <b>touch screen</b> typed Control Panel should be 32" medical grade color TFT/LED panel stationed in the sterile field.	
	The Size of Surgeon Control Panel needs to be revised to 32" for better visibility.	
21.	Modular OT	The Control Panel should comprise of following

	Surgeon Control Panel	services in addition to
	The Control Panel should comprise of following services in addition to Instruction board, Communication interfaces- both audio and video.	Instruction board, Communication interfaces- audio only
	To be amended as	
	The Control Panel should comprise of following services in addition to Instruction board, Communication interfaces- audio only	
	Communication interface with video option seems to be company specific and may not be available with other manufacturers. You are requested to kindly delete the same.	
22.	Modular OT	Hands free telephone set with Call Log list
	Surgeon Control Panel	with Call Log list
	Hands free telephone set with memory card	
	To be amended as	
	Hands free telephone set with Call Log list	
	Hands free telephone set is provided with Call Log instead of a memory card. You are requested to kindly amend the same.	
23.	Modular OT	Temperature and Humidity Indicator with Controller
	Surgeon Control Panel	with Temperature and Humidity Set points
	Temperature and Humidity Indicator with Controller	
	To be amended as	
	Temperature and Humidity Indicator with Set points	
	Kindly amend Temperature and Humidity Indicator with Controller with Temperature and Humidity Set points.	
24.	Modular OT	Tender terms & conditions
	Surgeon Control Panel	prevail.

25.	Temperature and Humidity Indicator should indicate temperature and humidity of the theatre and the display shall be digital and bright and the height not less than 30mm. The temperature and Humidity controller should be connected to the Air Conditioning system. To be amended as Temperature and Humidity Indicator should indicate temperature and humidity of the theatre and the display shall be digital and bright and the height not less than 30mm. The temperature and Humidity Indicator should be connected to the Air Conditioning system for On/ OFF Operations Temperature and Humidity Indicator will be connected to Air Conditioning System for On/Off Operations instead of controlling it. Request you to kindly amend the same. <b>Modular OT</b>	Surgeon Control Panel should be BIS/European CE Declaration of Conformity/
	Surgeon Control Panel should be BIS/European	USFDA
	CE with 4 digit notified no./ USFDA To be amended as	
	Surgeon Control Panel should be BIS/European CE Declaration of Conformity/ USFDA	
	Surgeon Control Panels are covered under Class 1 Medical Devices, hence it will be provided with Declaration of conformity instead of 4 digit notified body number. You are requested to kindly amend the same accordingly.	
26.	Modular OT	Should have at least 3
	Surgeon Pendant- Double Arm	shelves of minimum 700- 750mm size/ 560 mm x 460mm
	Should have at least 3 shelves of minimum 700-750mm size	
	To be amended as	
	Should have at least 3 shelves of minimum size: 560 mm x 460mm	

	The size of shelves mentioned is company	
	specific. You are requested to kindly amend and	
	mention the same.	
27.	Modular OT	1) Size of Service Head Column should be
	Points to be added:	minimum 1500 mm or above to
	1) Size of Service Head Column should be	accommodate Gas
	minimum 1500 mm or above to	Outlets and
	accommodate Gas Outlets and Electricals.	Electricals.
	2) For Safety reasons, Pendant should have	2) For Safety reasons,
	NIST Connection for Individual Gases,	Pendant should have
	Manometer for each gas.	NIST Connection for
	3) Shelf of Pendant should be made of High	Individual Gases,
	quality Bio- Clean Material.	Manometer for each gas.
	4) Pendant should have Anti-microbial Coating	3) Tender terms &
	/ Power coating.	conditions prevail.
	For Safety reasons, all the Electrical Sockets	4) Pendant should have
	should have Earthing Points.	Anti-microbial Coating /
	should have Darthing I onits.	Power coating.
		For Safety reasons, all the
		Electrical Sockets should
		have Earthing Points.
28.	Modular OT	Tender terms & conditions
20.		prevail.
	Anesthesia Boom System (Double Arm)	
	The arms may be fitted with pneumatic /	
	Electromagnetic brakes to prevent inadvertent movement.	
	To be amended as	
	The owne may be fitted with Electron with	
	The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.	
	Please note that the Pneumatic Brakes are	
	outdated technology maybe amended with	
	"Electromagnetic Brakes Only". You are	
	requested to kindly amend the same.	
29.	Modular OT	1) Size of Service Head
<i>)</i> .		Column should be
	Points to be added:	minimum 1500 mm or
		above to accommodate
		Gas Outlets and
	1) Size of Service Head Column should be	Electricals.
	minimum 1500 mm or above to	2) For Safety reasons,
	accommodate Gas Outlets and Electricals.	Pendant should have
	2) For Safety reasons, Pendant should have	NIST Connection for
	NIST Connection for Individual Gases,	Individual Gases,

	<ul> <li>Manometer for each gas.</li> <li>3) Shelf of Pendant should be made of High quality Bio- Clean Material.</li> <li>4) Pendant should have Anti-microbial Coating / Power coating.</li> <li>For Safety reasons, all the Electrical Sockets should have Earthing Points.</li> </ul>	Manometer for each gas. 3) Tender terms & conditions prevail. 4) Pendant should have Anti-microbial Coating / Power coating. For Safety reasons, all the Electrical Sockets should have Earthing Points.
30.	Modular OT Hatch Box	Size of Hatch Box shall be 600 mm x 600mm."
	610mmx610mm size To be amended as	
	600 mm x 600 mm size	
	The size of Hatch Box mentioned is not as per standard requirement for MOT's. You are requested to kindly amend the same to "600 mm x 600mm"	
31.	Modular OT	Writing Board as operating list Board of size-
	Writing Board	1000x700x60deep/940 x 640 x 50 mm.
	Writing Board as operating list Board of size- 1000x700x60deep	
	To be amended as	
	Writing Board as operating list Board of size- 940 x 640 x 50 mm.	
	The size of writing board mentioned is not as per standard requirement for MOT's. We request you to kindly revise the size of writing board to 940 x 640 x 50 mm. Kindly amend and mention the same.	
32.	Modular OT	1) It should be provided with Touch with
	Digital Display Panel (Workstation)	integrated PC unit and Keyboard.
	To be added:	2) Monitor should be flush
	Points to be added:	mounted with suitable frame in MOT wall.
	1) It should be provided with Touch with	Frame should be

	<ul> <li>integrated PC unit and Keyboard.</li> <li>2) Monitor should be flush mounted with suitable frame in MOT wall. Frame should be openable/serviceable for service.</li> <li>3) HD Flat Panel Monitor should be done according to IP 54 regulations.</li> <li>4) ESG Safety Glass Cover shall be used to protect the Monitor Screen from breakage and for additional Safety of Patient.</li> <li>5) For Optimizing the quality of Pictures, kindly add it should have DicomPreset, BT 709,BT 1886 features.</li> <li>6) Video Connectors on the back side of Monitor is to be hide by Cover of Aluminum from the Back side.</li> <li>7) Monitor should be integrated by Command Bar shown in the front side of Monitor.</li> <li>8) It should be Medical Grade Class-1 Device and European CE Declaration of Conformity/USFDA to be provided.</li> <li>The technical specifications mentioned of Digital Display Panel is very less. You are requested to kindly add the following specifications.</li> </ul>	<ul> <li>openable/serviceable for service.</li> <li>3) HD Flat Panel Monitor should be done according to IP 54 regulations.</li> <li>4) ESG Safety Glass Cover shall be used to protect the Monitor Screen from breakage and for additional Safety of Patient.</li> <li>5) For Optimizing the quality of Pictures, kindly add it should have DicomPreset, BT 709,BT 1886 features.</li> <li>6) Video Connectors on the back side of Monitor is to be hide by Cover of Aluminum from the Back side.</li> <li>7) Monitor should be integrated by Command Bar shown in the front side of Monitor.</li> <li>8) It should be Medical Grade Class-1 Device and BIS/European CE Declaration of Conformity/USFDA to be provided.</li> </ul>
33.	Modular OT	The dimensions of each storage unit should not be
	Storage unit The dimensions of each storage unit should not be less than height 1800mm x width 900mm x depth 350mm.	less than height 1800mm x width 900mm x depth 350mm or 2100 x 1200 x 350mm
	To be amended as	
	The dimensions of each storage unit should not be less than 2100 x 1200 x 350mm	
	The size of Storage unit mentioned is not as per standard requirement of MOT's. You are requested to kindly amend the same accordingly.	

34.	Modular OT	Electric Distribution Panel, Mains, Relays, Circuit
	Distribution Board Electrical Wiring, Conduiting With Fixtures Inside The Operation Theatre Electric Distribution Panel, Transformers, Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet.	Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet.
	To be amended as	
	Electric Distribution Panel, Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet.	
	Transformers are not installed in Electrical Distribution Panel. You are requested to kindly delete the same.	
35.	Modular OT	Requirement of Stoppers and Strainers is not
	Scrub Station	mandatory.
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections, stoppers and strainers.	
	To be amended as	
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections.	
	Stoppers and Strainers are not mandatory requirement of Scrub Station. We request you to kindly delete the same from tender specifications.	
36.	Modular OT	Knee / Foot operated switch should be provided
	Scrub Station	····· <b>r</b> -····
	Knee operated switch should be provided additionally.	
	To be amended as	

	Knee / Foot operated switch should be provided additionally.	
	For MOT's Foot Operated switch are	
	recommended instead of knee operated. You are requested to kindly amend the same accordingly	
37.	Modular OT	Toughened glasses of thickness 5 / 6mm
	View Window	thickness 5 / 6mm
	Toughened glasses of thickness 6 mm	
	To be amended as	
	Toughened glasses of thickness 5 / 6mm	
	The minimum thickness of Toughened glass required for View window is 5mm thick. You are requested to kindly amend the same to 5 / 6 mm thick.	
38.	Modular OT	The window blinds should
	View Window	be operated with Remote Control / manually.
	The window blinds should be operated with Remote Control and manually.	
	To be amended as	
	The window blinds should be operated with Remote Control / manually.	
	Window blinds are operated via remote control / manual operations.	
39.	Modular OT	BIS/European CE
	OT Light	Declaration of Conformity with ISO 13485 /US FDA certified
	BIS/European CE /US FDA certified	
	To be amended as	
	BIS/European CE Declaration of Conformity with ISO 13485 /US FDA certified	
	You are requested to kindly amend the quality certification for OT Light to "European CE Declaration of Conformity with ISO 13485 instead of European CE".	
40.	Modular OT	Light head Diameter : 30-
40.	Modular OT	Light head Diameter : 30-

	OT Light	35/ 800mm × 720mm of size / 679 x 708 mm
	Light head Diameter : 30-35/ 800mm × 720mm of size	
	To be amended as	
	Light head Diameter : 30-35/ 800mm × 720mm of size / 679 x 708 mm	
	The size of Light Head diameter mentioned is company specific. You are requested to kindly add size: 679 x 708 mm	
41.	Modular OT	Operating/Storage Humidity : 5 – 95%
	OT Light	
	Operating/Storage Humidity : 10 – 95%	
	To be amended as	
	Operating/Storage Humidity : 5 – 95%	
	Company specific specifications needs to be amended.	
42.	Modular OT	Signal to Noise Ratio (S/N Ratio) :>50 dB
	Camera System	,
	Signal to Noise Ratio (S/N Ratio) :<50 dB	
	To be amended as	
	Signal to Noise Ratio (S/N Ratio) :>50 dB	
	It seems there is some typographical error in the Noise Ratio mentioned in the specifications. Usually, it is greater than 50 dB instead of less than 50 dB. Request you to kindly correct the symbol mentioned in the specifications.	
43.	Modular OT	Power Supply: Through Light / max. 4.8 W to 12W
	Camera System	
	Power Supply: Through Light / max. 12W.	
	To be amended as	

	Power Supply: Through Light / max. 4.8 W	
	Power Supply should be revised to 4.8W to 12 W. Kindly amend the same.	
44.	Modular OT	Video Output : HDSDI,
	Camera System Video Output : HD, S-Video & Composite Video To be amended as	DVI, Y/C, F-BAS(PAL /NTSC)S-Video & Composite Video are outdated technology and are not used as on date. You are requested to kindly amend the Video Output to HDSDI, DVI, Y/C, F-BAS(PAL /NTSC)
	Video Output : HDSDI, DVI, Y/C, F-BAS(PAL /NTSC)	
	S-Video & Composite Video are outdated technology and are not used as on date. You are requested to kindly amend the Video Output to HDSDI, DVI, Y/C, F-BAS(PAL /NTSC)	
45.	Modular OT	Recording system shall be offered separately.
	Recording System	offered separately. Recording system should be full HD monitor LCD 19"-
	Recording system shall be offered separately. Recording system should be full HD monitor LCD 19"touch screen or more.	32" touch screen or more.
	To be amended as	
	Recording system shall be offered separately. Recording system should be full HD monitor LCD 32" touch screen or more.	
	For better visibility, size of Recording System must be revised to 32" touch screen or more.	
46.	Modular OT	1) Should be flushed
	Points to be added:	mounted on the OT wall with suitable frame.
	<ol> <li>Should be flushed mounted on the OT wall with suitable frame.</li> <li>Recording system should be integrated streaming with streaming.</li> </ol>	<ol> <li>2) Recording system should be integrated streaming with streaming.</li> <li>3) ESG Safety Glass Cover is must to protect the</li> </ol>
	3) ESG Safety Glass Cover is must to protect the Monitor Screen from breakage and for	Monitor Screen from breakage and for

	<ul> <li>Additional Safety of Patient.</li> <li>4) Recording system should be done according to IP 54 regulations.</li> <li>5) Recording System should have P-CAP Multi-Touch Display.</li> <li>6) It should be Medical Grade Class-1 Device and European CE Declaration of Conformity to be provided/USFDA</li> <li>The Technical Specifications mentioned for are very less for an imported item. You are requested to kindly add the following points.</li> </ul>	<ul> <li>Additional Safety of Patient.</li> <li>4) Recording system should be done according to IP 54 regulations.</li> <li>5) Recording System should have P-CAP Multi-Touch Display.</li> <li>6) It should be Medical Grade Class-1 Device and BIS/European CE Declaration of Conformity to be provided/USFDA</li> </ul>
47.	Modular OT Points to be added:	Tender terms & conditions prevail.
	Surgeon Control Panel, Digital Display Panel and Recording System should be of same make.	
	To be amended as	
	For better compatibility and connectivity, kindly add the lines "Surgeon Control Panel, Digital Display Panel and Recording System should be of same make"	
48.	Modular OT	Tender terms & conditions prevail.
	Turnkey Works	
	To be deleted from the specifications:	
	Interior decoration, air conditioning duct, furniture and other related works.	
	<b>Electrical cabling</b> of IS : 1554 standard and wiring as per IS : 732 standard from MDB (Single point source) to Electric Distributional Panel and to the corresponding load points	
	• Earthing system of Control panel and other electrical instrument and accessories in the OT area as per standard guidelines of BIS (Latest edition). All cable trenches and railings should be made wherever required.	
	Providing fixing of <b>Electrical Gadgets</b> like ELCB, MCB, Light Points, Power points, in the	

	<ul> <li>Modular OT room. • Number of fans, power point, bulbs/tube light. Apart from these supplies to the individual equipments with ELCB &amp; MCB for Modular OT • Installation of MCB, ACB, ELCB &amp; OCB of Havell/Siemens/L&amp;T/Schneider etc for Control Panel for Modular OT.</li> <li>Ref. Turnkey works, our work is confined to minor cutouts, demolition minor reconstruction work only and not interior decoration, air conditioning duct, furniture and other related works.</li> <li>You are therefore requested to kindly delete the same from technical specifications of tender.</li> </ul>	
49.	MID-END Modular OT	MID-END Modular OT
	Wall & Ceiling Construction	Silicon sealant / Metallic
	Silicon sealant to provide seamless operating room.	Putty to provide seamless operating room
	To be amended as	
	Silicon sealant / Metallic Putty to provide seamless operating room	
	Please note joints shall be filled by using metallic Filler putty / Silicon sealant to provide seamless operating room.	
	The above point is considered for Modular OT specifications and not in MID- End OT Specifications. Kindly amend the same accordingly.	
50.	MID-END Modular OT	Suspension elements:
	Wall & Ceiling Construction	Suspension bracket with tension spring / Threaded Rod.
	Suspension elements : Suspension bracket with tension spring	
	To be amended as	
	Suspension elements: Suspension bracket with tension spring / Threaded Rod.	

	Suspension is provided through threaded rod with bracket instead of tension spring to maintain the strength of wall and Ceiling panel. Kindly amend the line and mention "Suspension bracket with tension spring / threaded rod".	
	The above point is considered for Modular OT specifications and not in MID- End OT Specifications. Kindly amend the same accordingly.	
51.	MID-END Modular OT	All motors used should be
	Doors and Frames	DC brushless / PMDC motors with essential isolation from mains.
	All motors used should be DC brushless motors with essential isolation from mains.	
	To be amended as	
	All motors used should be DC brushless / PMDC motors with essential isolation from mains.	
	Motor shall be PMDC Motor instead of DC Brushless Motor. Kindly amend the same.	
	The above point is considered for Modular OT specifications and not in MID- End OT Specifications. Kindly amend the same accordingly.	
52.	MID-END Modular OT	The door and control should
	Doors and Frames	comply current IEE regulations and BS 7971 standard or comply to EN
	The door and control should comply current IEE regulations and BS 7971 standard.	61000-6-3, EN 61000-6-2 standard.
	To be amended as	
	The Door and control comply to EN 61000-6-3, EN 61000-6-2 standard.	
	The Door and control comply to EN 61000-6-3, EN 61000-6-2 instead of BS 7971 standard. Kindly amend the same.	
53.	MID-END Modular OT	Air tightness 99.99% at a
		pressure 75KPa
	Doors and Frames	
	Air tightness 99.99% at a pressure 100KPa	

	To be amended as	
	Air tightness 99.99% at a pressure 75KPa	
	In High Pressure Laminate, Doors shall have Air tightness 99.99% at a pressure 75KPa instead of 100KPa. You are requested to kindly amend the same.	
54.	MID-END Modular OT	Overall Thickness of Door
	Doors and Frames	should be 55- 60 mm. HPL Layer on both sides should
	Doors and Frames	be 4mm each side, i.e total 8
	The thickness of the door core should be 48mm.	mm.
	The top layer on both sides is high Pressure	
	laminate of size 6mm. The overall thickness of the door shutter is 55-60 mm	
	To be amended as	
	Overall Thickness of Door should be 55- 60 mm. HPL Layer on both sides should be 4mm	
	each side, i.e total 8 mm.	
	The thickness mentioned of HPL Laminate seems to be company specific. You are	
55.	requested to amend the same. MID-END Modular OT	Door opening handle should
55.		be strong and sturdy and the
	Doors and Frames	handle material should be AISI-304 Stainless steel and
	Door opening handle should be strong and sturdy and the handle material should be AISI-	glossy / MATT finish.
	304 Stainless steel and glossy finish.	
	To be amended as	
	Door opening handle should be strong and sturdy and the handle material should be AISI-	
	304 Stainless steel and glossy / MATT finish.	
	The Door handles are provided with MATT finish instead of Glossy Finish. Request you to	
	kindly amend the same accordingly.	
56.	MID-END Modular OT	Peripheral lights - Size-2ft x 2ft / 581mm x 581mm
	Peripheral Light cum Clean Room Luminaries	approx.

	Peripheral lights (Size-2ft x 2ft)	
	To be amended as	
	Peripheral lights - Size-2ft x 2ft / 581mm x 581mm approx.	
	The size of Peripheral Light mentioned is specific. Kindly amend the same accordingly.	
57.	MID-END Modular OT	The Non-hygroscopic high
	Peripheral Light cum Clean Room Luminaries	glow low power LED based peripheral lights having high quality low wattage LED lighting system and optical
	The Non-hygroscopic high glow low power LED based peripheral lights having high quality low wattage LED lighting system with highly spectacular anodized Aluminum reflectors and optical antiglare system for adjustable light distribution.	antiglare system for adjustable light distribution.
	To be amended as	
	The Non-hygroscopic high glow low power LED based peripheral lights having high quality low wattage LED lighting system and optical antiglare system for adjustable light distribution.	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested to kindly delete the words "anodized Aluminum reflectors" from the technical specifications of tender.	
58.	MID-END Modular OT	Reflectors - Deleted
	Peripheral Light cum Clean Room Luminaries	
	The reflectors should be of high quality, cleanable and non deteriorating.	
	To be deleted	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested to kindly delete this line from tender specifications.	
59.	MID-END Modular OT	The touch screen typed
57.		touch serech typed

	<b>Surgeon Control Panel</b> The <b>touch screen</b> typed Control Panel should be 19" medical grade color TFT/LED panel stationed in the sterile field.	Control Panel should be 19"-32" medical grade color TFT/LED panel stationed in the sterile field.
	To be amended as	
	The <b>touch screen</b> typed Control Panel should be 32" medical grade color TFT/LED panel stationed in the sterile field.	
	The size of Surgeon Control Panel needs to be revised to 32" for better visibility.	
60.	MID-END Modular OT	The Control Panel should
	Surgeon Control Panel	comprise of following services in addition to Instruction board,
	The Control Panel should comprise of following services in addition to Instruction board, Communication interfaces- both audio and video.	Communication interfaces- audio only
	To be amended as	
	The Control Panel should comprise of following services in addition to Instruction board, Communication interfaces- audio only	
	Communication interface with video option seems to be company specific and may not be available with other manufacturers. You are requested to kindly delete the same.	
61.	MID-END Modular OT	Hands free telephone set
	Surgeon Control Panel	with Call Log list
	Hands free telephone set with memory card	
	To be amended as	
	Hands free telephone set with Call Log list	
	Hands free telephone set is provided with Call Log instead of a memory card. You are requested to kindly amend the same.	
62.	MID-END Modular OT	Temperature and Humidity Indicator with Controller

		· · · · · · · · · · · · · · · · · · ·
	Surgeon Control Panel Temperature and Humidity Indicator with Controller	with Temperature and Humidity Set points.
	To be amended as	
	Temperature and Humidity Set points	
	Kindly amend Temperature and Humidity Indicator with Controller with Temperature and Humidity Set points.	
63.	MID-END Modular OT	Tender terms & conditions
	Surgeon Control Panel	prevail.
	Temperature and Humidity Indicator should indicate temperature and humidity of the theatre and the display shall be digital and bright and the height not less than 30mm. The temperature and Humidity controller should be connected to the Air Conditioning system.	
	To be amended as	
	Temperature and Humidity Indicator should indicate temperature and humidity of the theatre and the display shall be digital and bright and the height not less than 30mm. The temperature and Humidity Indicator should be connected to the Air Conditioning system for On/ OFF Operations.	
	Temperature and Humidity Indicator will be connected to Air Conditioning System for On/Off Operations instead of controlling it. Request you to kindly amend the same.	
64.	MID-END Modular OT	Tender terms & conditions
	11a) Anesthetic Pendant (Type-I)	prevail.
	One swivel arm of 1000 mm and another of 800 mm. The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%	
	To be amended as	
	Kindly add more Arm size also, i.e	

900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.         65.       MID-END Modular OT         Anesthetic Pendant (Type-II)       Tender terms & conditions prevail.         One swivel arm of 1000 mm and another of 800 mm.       The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%         To be amended as       Kindly add more Arm size also, i.e         900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.         66.       MID-END Modular OT Anesthetic Pendant (Type-II)         To be added:       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.       Should be BIS/European CE 4 digit notified body number /US FDA certified	-		
fixed type. Kindly add variation in the size of pendant as mentioned.       Tender terms & conditions prevail.         65.       MID-END Modular OT       Tender terms & conditions prevail.         Anesthetic Pendant (Type-II)       One swivel arm of 1000 mm and another of 800 mm.       The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%       To be amended as         Kindly add more Arm size also, i.e       900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm       The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.         66.       MID-END Modular OT       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.       Should be BIS/European CE 4 digit notified body number /US FDA certified			
65.       MID-END Modular OT       Tender terms & conditions prevail.         Anesthetic Pendant (Type-II)       One swivel arm of 1000 mm and another of 800 mm.       The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%         To be amended as       Kindly add more Arm size also, i.e       900 + 800 mm / 1000mm + 800mm + 900mm + 900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm       The arms may be fitted with generation in the size of pendant as mentioned.       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         66.       MID-END Modular OT       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.       Should be BIS/European CE 4 digit notified body number /US FDA certified		fixed type. Kindly add variation in the size of	
Anesthetic Pendant (Type-II)       One swivel arm of 1000 mm and another of 800 mm.         The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%       To be amended as         To be amended as       Kindly add more Arm size also, i.e       900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 900mm + 900mm / 800mm = 800mm         The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.       The arms may be fitted with Pneumatic/Electromagnetic brakes to prevent inadvertent movement.         66.       MID-END Modular OT       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.       Should be BIS/European CE 4 digit notified body number /US FDA certified	65.		Tender terms & conditions
mm.         The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%         To be amended as         Kindly add more Arm size also, i.e         900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.         66.       MID-END Modular OT         Anesthetic Pendant (Type-II)       The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.       Should be BIS/European CE 4 digit notified body number /US FDA certified		Anesthetic Pendant (Type-II)	prevail.
length in fully stretched position is (1000+800) = 1800mm±10%         To be amended as         Kindly add more Arm size also, i.e         900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.         66.       MID-END Modular OT         Anesthetic Pendant (Type-II)         To be added:         The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.         67.       MID-END Modular OT Anesthetic Pendant (Type-II)         67.       MID-END Modular OT Anesthetic Pendant (Type-II)			
Kindly add more Arm size also, i.e900 + 800 mm / 1000mm + 800mm / 900mm +900mm / 800mm + 800mmThe size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.66.MID-END Modular OT Anesthetic Pendant (Type-II) To be added: The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)67.MID-END Modular OT Anesthetic Pendant (Type-II)		length in fully stretched position is (1000+800)	
900 + 800 mm / 1000mm + 800mm / 900mm +         900mm / 800mm + 800mm         The size mentioned on 1000mm + 800mm is         fixed type. Kindly add variation in the size of         pendant as mentioned.         66.         MID-END Modular OT         Anesthetic Pendant (Type-II)         To be added:         The arms may be fitted with Electromagnetic         brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be         mentioned. You are requested to kindly add         electromagnetic brakes.         67.       MID-END Modular OT         Anesthetic Pendant (Type-II)         Should be BIS/European CE         4 digit notified body number         /US FDA certified		To be amended as	
900mm / 800mm + 800mmThe size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.66.MID-END Modular OTAnesthetic Pendant (Type-II)The arms may be fitted with Pneumatic/Electromagnetic brakes to prevent inadvertent movement.To be added:The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)67.MID-END Modular OT Anesthetic Pendant (Type-II)		Kindly add more Arm size also, i.e	
fixed type. Kindly add variation in the size of pendant as mentioned.The sum of the size of pendant as mentioned.66.MID-END Modular OTThe arms may be fitted with Pneumatic/Electromagnetic brakes to prevent inadvertent movement.To be added:The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)67.MID-END Modular OT Anesthetic Pendant (Type-II)			
66.MID-END Modular OTThe arms may be fitted with Pneumatic/Electromagnetic brakes to prevent inadvertent movement.To be added:The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.Should be BIS/European CE 4 digit notified body number /US FDA certified		fixed type. Kindly add variation in the size of	
Anesthetic Pendant (Type-II)brakes to prevent inadvertent movement.To be added:The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)Anesthetic Pendant (Type-II)	66.	<u> </u>	
To be added:The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)Should be BIS/European CE 4 digit notified body number /US FDA certified		Anesthetic Pendant (Type-II)	brakes to prevent
brakes to prevent inadvertent movement.         Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.         67.       MID-END Modular OT Anesthetic Pendant (Type-II)         Should be BIS/European CE 4 digit notified body number /US FDA certified		To be added:	
mentioned. You are requested to kindly add electromagnetic brakes.67.MID-END Modular OT Anesthetic Pendant (Type-II)Should be BIS/European CE 4 digit notified body number /US FDA certified		•	
Anesthetic Pendant (Type-II)4 digit notified body number /US FDA certified		mentioned. You are requested to kindly add	
Anesthetic Pendant (Type-II)       /US FDA certified	67.	MID-END Modular OT	Should be BIS/European CE
Should be BIS/European CE/US FDA certified		Anesthetic Pendant (Type-II)	
		Should be BIS/European CE/US FDA certified	
To be amended as		To be amended as	

	Should be BIS/European CE 4 digit notified body number /US FDA certified For quality purpose, we recommend amending European CE to European CE 4 digit notified body number.	
68.	MID-END Modular OT	1) Size of Service Head
	<ul> <li>Points to be added:</li> <li>1) Size of Service Head Column should be minimum 1500 mm or above to accommodate Gas Outlets and Electricals.</li> <li>2) For Safety reasons, Pendant should have NIST Connection for Individual Gases, Manometer for each gas.</li> <li>3) Shelf of Pendant should be made of High quality Bio- Clean Material.</li> <li>4) Pendant should have Anti-microbial Coating / Power coating.</li> <li>For Safety reasons, all the Electrical Sockets should have Earthing Points.</li> </ul>	<ul> <li>(a) Size of Service fread Column should be minimum 1500 mm or above to accommodate Gas Outlets and Electricals.</li> <li>(a) For Safety reasons, Pendant should have NIST Connection for Individual Gases, Manometer for each gas.</li> <li>(b) Tender terms and condition prevail</li> <li>(c) Pendant should have Anti-microbial Coating / Power coating.</li> <li>(c) For Safety reasons, all the Electrical Sockets should have Earthing Points.</li> </ul>
69.	MID-END Modular OT Surgeon Pendant (Type-1)	Tender terms & conditions prevail.
	Surgeon Pendant (Type-1)	
	Should have at least 3 shelves of minimum 750mm size	
	To be amended as	
	Should have at least 3 shelves of minimum 750mm / 400 x 300 mm size	
	The size of shelf mentioned is fixed type. Request you to kindly amend the same.	
70.	MID-END Modular OT	Tender terms & conditions
	Surgeon Pendant (Type-1)	prevail.
	One swivel arm of 1000 mm and another of 800 mm.	
	The swivel arms move only horizontally and the	

	Surgeon Pendant (Type-II)	prevent inadvertent movement.
73.	MID-END Modular OT	The arms may be fitted with Electromagnetic brakes to
	The size of shelf mentioned is fixed type. Request you to kindly amend the same.	
	To be amended as	
	Should have atleast 3 shelves of minimum 750mm / 560 mm x 460 mm size	
	Surgeon Pendant (Type-II)	
72.	MID-END Modular OT	Tender terms & conditions prevail.
	The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.	
	900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm	
	Kindly add more Arm size also, i.e	
	To be amended as	
	The swivel arms move only horizontally and the length in fully stretched position is (1000+800) = 1800mm±10%	
	One swivel arm of 1000 mm and another of 800 mm.	
	Surgeon Pendant (Type-II)	prevail.
71.	MID-END Modular OT	Tender terms & conditions
	The size mentioned on 1000mm + 800mm is fixed type. Kindly add variation in the size of pendant as mentioned.	
	900 + 800 mm / 1000mm + 800mm / 900mm + 900mm / 800mm + 800mm	
	Kindly add more sizes also, i.e	
	To be amended as	
	= 1800mm±10%	

	To be added:	
	The arms may be fitted with Electromagnetic brakes to prevent inadvertent movement.	
	Being an imported item, brakes of Arm must be mentioned. You are requested to kindly add electromagnetic brakes.	
74.	MID-END Modular OT Surgeon Pendant (Type-II)	Should be BIS/European CE 4 digit notified body number /US FDA certified.
	Should be BIS/European CE/US FDA certified	
	To be amended as	
	Should be BIS/European CE 4 digit notified body number /US FDA certified	
	For quality purpose, we recommend amending European CE to European CE 4 digit notified body number.	
75.	MID-END Modular OT	1) Size of Service Head
	Surgeon Pendant (Type-II)	Column should be minimum 1500 mm
	Points to be added:	or above to accommodate Gas Outlets and
	<ol> <li>Size of Service Head Column should be minimum 1500 mm or above to accommodate Gas Outlets and Electricals.</li> <li>For Safety reasons, Pendant should have NIST Connection for Individual Gases,</li> </ol>	Electricals. 2) For Safety reasons, Pendant should have NIST Connection for Individual Gases,
	<ul><li>Manometer for each gas.</li><li>3) Shelf of Pendant should be made of High quality Bio- Clean Material.</li><li>4) Pendant should have Anti-microbial Coating</li></ul>	Manometer for each gas. 3) Tender terms & conditions prevail. 4) Pendant should have
	/ Power coating. For Safety reasons, all the Electrical Sockets should have Earthing Points.	Anti-microbial Coating / Power coating. For Safety reasons, all the Electrical Sockets should
76.	MID-END Modular OT	have Earthing Points. Tender terms & conditions prevail.
	Hatch Box	provun.
	610mmx610mm size	
	To be amended as	

	600 mm x 600 mm size	
	The size of Hatch Box mentioned is not as per	
	standard requirement for MOT's. You are requested to kindly amend the same to "600 mm	
	x 600mm"	
77.	MID-END Modular OT	Writing Board as operating list Board of size-
	Writing Board	$\frac{1000 \times 700 \times 600}{1000 \times 700 \times 600} = \frac{1000 \times 1000}{1000} \times \frac{10000}{1000} \times \frac{1000}{1000} \times \frac{10000}{1000} \times \frac{1000}{1000} \times \frac{10000}{1000} \times \frac{1000}{1000} \times \frac{1000}{1000$
	Writing Board as operating list Board of size- 1000x700x60deep	
	To be amended as	
	Writing Board as operating list Board of size- 940 x 640 x 50 mm.	
	The size of writing board mentioned is not as per standard requirement for MOT's. We request you to kindly revise the size of writing board to 940 x 640 x 50 mm. Kindly amend and mention the same.	
78.	MID-END Modular OT	The dimensions of each
	Storage unit	storage unit should not be less than height 1800mm x
		width 900mm x depth
	The dimensions of each storage unit should not be less than height 1800mm x width 900mm x depth 350mm.	350mm/2100 x 1200 x 350mm.
	To be amended as	
	The dimensions of each storage unit should not be less than 2100 x 1200 x 350mm	
	The size of Storage unit mentioned is not as per standard requirement of MOT's. You are requested to kindly amend the same accordingly.	
79.	MID-END Modular OT	BIS/European CE
	OT Light	Declaration of Conformity with ISO 13485 /US FDA certified.
	BIS/European CE /US FDA certified	
	To be amended as	

-		
	BIS/European CE Declaration of Conformity	
	with ISO 13485 /US FDA certified	
	You are requested to kindly amend the quality	
	certification for OT Light to "European CE	
	Declaration of Conformity with ISO 13485	
	instead of European CE".	
		L'141 1 D' 4 20
80.	MID-END Modular OT	Light head Diameter : 30-
		35/ 800mm × 720mm of size
	OT Light	/ 679 x 708 mm
	Light head Diameter : 30-35/ 800mm × 720mm	
	of size	
	To be amended as	
	Light head Diameter : 30-35/ 800mm × 720mm	
	of size / 679 x 708 mm	
	01 SIZE / 0/9 X /08 IIIII	
	The size of Light Head diameter mentioned is	
	company specific. You are requested to kindly	
	add size: 679 x 708 mm	
81.	MID-END Modular OT	Operating/Storage Humidity
		:5-95%
	OT Light	
	Operating/Storage Humidity : 10 – 95%	
	To be amended as	
	10 be unended us	
	Operating/Storage Humidity : 5 – 95%	
	operating/storage ritilitativy . 5 – 9576	
	Company specific specifications needs to be	
	amended.	
82.	MID-END Modular OT	Signal to Noise Ratio (S/N
		Ratio) :>50 dB
	Camera System	
	Signal to Noise Ratio (S/N Ratio) :<50 dB	
	To be amended as	
	Signal to Noise Ratio (S/N Ratio) :>50 dB	
	It seems there is some typographical error in the	
	It seems there is some typographical error in the	
	Noise Ratio mentioned in the specifications.	
	Usually, it is greater than 50 dB instead of less	
	than 50 dB. Request you to kindly correct the	
	symbol mentioned in the specifications.	
83.	MID-END Modular OT	Power Supply: Through
L	1	

	Camera System	Light / max. 4.8W to 12W.
	Power Supply: Through Light / max. 12W.	
	To be amended as	
	Power Supply: Through Light / max. 4.8 W	
	Power Supply should be revised to 4.8W to 12 W. Kindly amend the same.	
84.	MID-END Modular OT	Video Output : HDSDI,
	Camera System	DVI, Y/C, F-BAS(PAL /NTSC)S-Video &
	Video Output : HD, S-Video & Composite Video	Composite Video are outdated technology and are not used as on date. You are requested to kindly amend
	To be amended as	the Video Output to HDSDI, DVI, Y/C, F-BAS(PAL
	Video Output : HDSDI, DVI, Y/C, F-BAS(PAL /NTSC)	/NTSC)
	S-Video & Composite Video are outdated technology and are not used as on date. You are requested to kindly amend the Video Output to HDSDI, DVI, Y/C, F-BAS(PAL /NTSC)	
85.	MID-END Modular OT	Stoppers and strainers are
	Scrub Station	not mandatory.
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections, stoppers and strainers.	
	To be amended as	
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections.	
	Stoppers and Strainers are not mandatory requirement of Scrub Station. We request you to kindly delete the same from tender specifications.	
86.	MID-END Modular OT	Knee / Foot operated switch should be provided

	Scrub Station	additionally.
	Knee operated switch should be provided additionally.	
	To be amended as	
	Knee / Foot operated switch should be provided additionally.	
	For MOT's Foot Operated switch are recommended instead of knee operated. You are	
87.	requested to kindly amend the same accordingly MID-END Modular OT	Tender terms & conditions
	Turnkey Works	prevail.
	To be deleted from the specifications:	
	interior decoration, air conditioning duct, furniture and other related works.	
	<b>Electrical cabling</b> of IS : 1554 standard and wiring as per IS : 732 standard from MDB (Single point source) to Electric Distributional Panel and to the corresponding load points	
	• Earthing system of Control panel and other electrical instrument and accessories in the OT area as per standard guidelines of BIS(Latest edition). All cable trenches and railings should be made wherever required.	
	Providing fixing of <b>Electrical Gadgets</b> like ELCB, MCB, Light Points, Power points, in the Modular OT room. • Number of fans, power point, bulbs/tube light. Apart from these supplies to the individual equipments with ELCB & MCB for Modular OT • Installation of MCB, ACB, ELCB & OCB of Havell/Siemens/L&T/Schneider etc for Control Panel for Modular OT.	
	Ref. Turnkey works, our work is confined to minor cutouts, demolition minor reconstruction work only and not interior decoration, air conditioning duct, furniture and other related works.	
	You are therefore requested to kindly delete the	

	same from technical specifications of tender.	
88.	Minor Operation Theatre	Silicon sealant / Metallic
	Ceiling Construction	Putty to provide seamless operating room
	Silicon sealant to provide seamless operating room.	
	To be amended as	
	Silicon sealant / Metallic Putty to provide seamless operating room	
	Please note joints shall be filled by using metallic Filler putty / Silicon sealant to provide seamless operating room.	
	The above point is considered for Modular OT specifications and not in Minor OT Specifications. Kindly amend the same accordingly.	
89.	Minor Operation Theatre	Suspension elements:
	Ceiling Construction	Suspension bracket with tension spring / Threaded Rod.
	Suspension elements : Suspension bracket with tension spring	
	To be amended as	
	Suspension elements: Suspension bracket with tension spring / Threaded Rod.	
	Suspension is provided through threaded rod with bracket instead of tension spring to maintain the strength of wall and Ceiling panel. Kindly amend the line and mention "Suspension bracket with tension spring / threaded rod".	
	The above point is considered for Modular OT specifications and not in MID- End OT Specifications. Kindly amend the same accordingly.	
90.	Minor Operation Theatre	Both way opening double
	Swing Door	leaf door of 40 / 44 mm thick door shutters

	Both way opening double leaf door of 44 mm thick door shutters	
	To be amended as	
	Both way opening double leaf door of 40 / 44 mm thick door shutters	
	44mm thick door is company specific. Kindly amend the same to 40-44mm thick Door	
91.	Minor Operation Theatre	2.5/1.2 mm thick Al/GPSP
	Swing Door	powder coated / SS door frames
	Swing Door	numes
	2.5/1.2 mm thick Al/GPSP powder coated door frames	
	To be amended as	
	2.5/1.2 mm thick Al/GPSP powder coated / SS door frames	
	Swing Door comes with SS Frame instead of Al/GPSP powder coated. You are requested to kindly add the same.	
92.	Minor Operation Theatre	Tender terms & conditions
	1	prevail.
	Swing Door	proveni
	Totally flush with the wall panels	
	To be amended as	
	Flush at one end only	
	5	
	Kindly amend the same	
0.2		TT 1 1'1 1 1 1 1
93.	Minor Operation Theatre	Hardware like double glazed view glass of standard size
	Swing Door	and hinges etc.
	Hardware like push plates, handles, door closure, double glazed view glass of std size, hinges and provision for concealed automatic door bottom Drop seal etc.	
	To be amended as	
1		
	Hardware like double glazed view glass of std size and hinges etc.	

94.	Swing Doors don't come with push plates, handles, Door closure and provision for concealed automatic door bottom Drop seal etc. These are not the requirement of swing Doors. You are requested to kindly delete the same. <b>Minor Operation Theatre</b> <b>Hinged Door</b> Totally flush with the wall panels	Tender terms & conditions prevail.
	To be amended as Flush at one end only	
	Kindly amend the same	
95.	Minor Operation Theatre	The LED lamp of size 2ft.x
	Peripheral Light	2ft / 581mm x 581mm approx with optical antiglare
	The LED lamp of size 2ft.x 2ft with highly spectacular anodized Aluminum reflectors and optical antiglare system	system.
	To be amended as	
	The LED lamp of size 2ft.x 2ft / 581mm x 581mm approx with optical antiglare system.	
	The size of Peripheral Light mentioned is specific. Kindly amend the same accordingly.	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested to kindly delete the words "anodized Aluminum reflectors" from the technical specifications of tender.	
96.	Minor Operation Theatre	Reflectors - Deleted
	Peripheral Light	
	The reflectors should be of high quality, cleanable and non deteriorating.	
	To be deleted	
	Since the Peripheral Lights are LED based, it does not required reflectors. You are requested	

	to kindly delete this line from tender specifications.	
97.	<b>Minor Operation Theatre</b> <b>Distribution Board Electrical Wiring</b> ,	Tender terms & conditions prevail.
	Conduiting WithFixtures Inside The Operation Theatre	
	Transformers, Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet.	
	To be amended as	
	Mains, Relays, Circuit protective equipment, for all circuits of Operation theatre shall be installed in the remote cabinet.	
	Transformers are not installed in Electrical Distribution Panel for OT's. You are requested to kindly delete the same.	
98.	Minor Operation Theatre	Stoppers and Strainers are not mandatory
	Scrub Station	not mandatory
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections, stoppers and strainers.	
	To be amended as	
	The scrub sink should be provided with a front access panel which should be easily removed for access to the water controlled valve, waste connections.	
	Stoppers and Strainers are not mandatory requirement of Scrub Station. We request you to kindly delete the same from tender specifications.	
99.	Minor Operation Theatre	Knee / Foot operated switch should be provided
	Scrub Station	additionally.
	Knee operated switch should be provided additionally.	
	To be amended as	

Knee / Foot operated switch should be provided additionally.	
For MOT's Foot Operated switch are recommended instead of knee operated. You are	
-	
	BIS/European CE
Minor Operation Theatre	
OT Light	Declaration of Conformity with ISO 13485 /US FDA certified
BIS/European CE /US FDA certified	
To be amended as	
BIS/European CE Declaration of Conformity with ISO 13485 /US FDA certified	
You are requested to kindly amend the quality certification for OT Light to "European CE Declaration of Conformity with ISO 13485 instead of European CE".	
	Light head Diameter : 30-
	$35/800$ mm $\times$ 720 mm of size
OT Light	/ 679 x 708 mm
Light head Diameter : 30-35/ $800mm \times 720mm$ of size	
To be amended as	
Light head Diameter : 30-35/ 800mm $\times$ 720mm of size / 679 x 708 mm	
The size of Light Head diameter mentioned is company specific. You are requested to kindly add size: 679 x 708 mm	
	Operating/Storage Humidity
	: 5 - 95%
OT Light	. 5 - 9570
Operating/Storage Humidity : 10 – 95%	
To be amended as	
Operating/Storage Humidity : 5 – 95%	
Company specific specifications needs to be amended.	
Turnkey Works	Tender terms & conditions prevail.
	additionally. For MOT's Foot Operated switch are recommended instead of knee operated. You are requested to kindly amend the same accordingly Minor Operation Theatre OT Light BIS/European CE /US FDA certified To be amended as BIS/European CE Declaration of Conformity with ISO 13485 /US FDA certified You are requested to kindly amend the quality certification for OT Light to "European CE Declaration of Conformity with ISO 13485 instead of European CE". Minor Operation Theatre OT Light Light head Diameter : 30-35/ 800mm × 720mm of size To be amended as Light head Diameter : 30-35/ 800mm × 720mm of size / 679 x 708 mm The size of Light Head diameter mentioned is company specific. You are requested to kindly add size: 679 x 708 mm Minor Operation Theatre OT Light Operating/Storage Humidity : 10 – 95% To be amended as Operating/Storage Humidity : 5 – 95% Company specific specifications needs to be amended.

	To be deleted from the gradientions.	
	To be deleted from the specifications:	
	Interior decoration, air conditioning duct, furniture and other related works.	
	<b>Electrical cabling</b> of IS : 1554 standard and wiring as per IS : 732 standard from MDB (Single point source) to Electric Distributional Panel and to the corresponding load points.	
	Providing fixing of <b>Electrical Gadgets</b> like ELCB, MCB, Light Points, Power points, in the Modular OT room. • Number of fans, power point, bulbs/tube light. Apart from these supplies to the individual equipments with ELCB & MCB for Modular OT • Installation of MCB, ACB, ELCB & OCB of Havell/Siemens/L&T/Schneider etc for Control Panel for Modular OT.	
	Ref. Turnkey works, our work is confined to minor cutouts, demolition minor reconstruction work only and not interior decoration, air conditioning duct, furniture and other related works.	
	You are therefore requested to kindly delete the same from technical specifications of tender.	
104.	HVAC Tender BOQ –OT AHUs	Tender terms & conditions prevail.
	Planning, Design, Supply, installation, testing and commissioning of sheet metal sectionalized construction draw thru type in double skin construction. Each Air Handling Units shall be with pre and fine filter section with pre and fine filters, mixing chamber, minimum 2 bend PVC eliminators, chilled water cooling coil, hot water coil (AHRI/ Eurovent certified) of copper tube & Al fins construction, squirrel cage induction motor with VFD starters (IP-54/55) with bypass starter mounted on AHU/wall for supply and return air fans, motor efficiency class IE-3 suitable for 415+/- 10% V, 50 Hz 3 Phase AC supply suitably designed for variable frequency drives. Backward curved plug type direct driven supply air and return air fans. fine filters section , suitable pan type humidifier	

isolation arrangement.	
To be amended as	
Planning, Design, Supply, installation, testing and commissioning of sheet metal sectionalized construction draw thru type in double skin construction. Each Air Handling Units shall be with pre and fine filter section with pre and fine filters, mixing chamber, minimum 2 bend PVC eliminators, chilled water cooling coil, hot water coil (AHRI/ Eurovent certified) of copper tube & A1 fins construction, squirrel cage induction motor with starter with bypass starter mounted on AHU/wall for supply and return air fans, motor efficiency class IE-3 suitable for 415+/- 10% V, 50 Hz 3 Phase AC supply suitably designed for variable frequency drives. Backward curved belt and pully driven supply air and return air fans. fine filters section, suitable vibration isolation arrangement.	
Kindly amend VFD starters to starters only, since the AHU's installed in Modular OTs are required with constant CFM (Air Flow), however incase of VFD Starters, Air flow Flow changes by the VFD. Hence, it needs amendment.	
Please note in plug type Fan, motor and Fan is a single unit, incase of faulty, complete needs to replaced, however in case of Backward curved fan with Pully and belt driven, incase of motor is faulty, only motor needs to replaced.	
PAN Type humidifiers are not recommended for Plain Areas as it is only required for Hilly Areas, where humidity is low. Kindly make necessary amendment.	
HVAC	Tender terms & conditions
Fan Section	prevail.
The fan shall be selected for a fan speed not exceeding 1000 rpm for fan dia of more than 350 mm and fan outlet velocity shall not exceed 1800 fpm.	
	To be amended as Planning, Design, Supply, installation, testing and commissioning of sheet metal sectionalized construction. Each Air Handling Units shall be with pre and fine filter section with pre and fine filters, mixing chamber, minimum 2 bend PVC eliminators, chilled water cooling coil, hot water coil (AHRI/ Eurovent certified) of copper tube & Al fins construction, squirrel cage induction motor with starter with bypass starter mounted on AHU/wall for supply and return air fans, motor efficiency class IE-3 suitable for 415+/- 10% V, 50 Hz 3 Phase AC supply suitably designed for variable frequency drives. Backward curved belt and pully driven supply air and return air fans. fine filters section, suitable vibration isolation arrangement. Kindly amend VFD starters to starters only, since the AHU's installed in Modular OTs are required with constant CFM (Air Flow), however incase of VFD Starters, Air flow Flow changes by the VFD. Hence, it needs amendment. Please note in plug type Fan, motor and Fan is a single unit, incase of faulty, complete needs to replaced, however in case of Backward curved fan with Pully and belt driven, incase of motor is faulty, only motor needs to replaced. PAN Type humidifiers are not recommended for Plain Areas as it is only required for Hilly Areas, where humidity is low. Kindly make necessary amendment. HVAC Fan Section The fan shall be selected for a fan speed not exceeding 1000 rpm for fan dia of more than 350 mm and fan outlet velocity shall not exceed

	To be amended as	
	The fan shall be selected for a fan speed, have optimum fan selection for fan dia of more than 350 mm and fan outlet velocity shall not exceed 1800 fpm.	
	Fan Speed may impact the size of AHU. If Fan Size increases, AHU size will increase around 1.5 times and may take more space. Hence it	
	should be deleted.	
106.	List of Approved Makes	Tender terms and conditions prevail
	Air Handling Unit - Carrier / Caryaire /ZECO / System air /VTS / Flaktwood / Unique /Waves / Edgtech	
	To be amended as	
	Air Handling Unit - Carrier / Caryaire /ZECO / System air /VTS / Flaktwood / Unique /Waves / Edgtech/ Ravi Aircon	
	Kindly add one more reputed makes for the AHU's, i.e Ravi Aircon	

The bid submission date is extended from 11.03.2020 to 13.03.2020 and bid security should be valid for 180 days from the date of original bid submission ie. from 04.03.2020.

All other terms & conditions remain unchanged.

Sr. Chief General Manager -I, HSCC (I) Ltd. For and behalf of Director, PGIMER, Chandigarh