Response To Pre-Bid Queries (Pre-Bid date: 17.11.2022)				
GeM Bid Number: GEM/2022/B/2701599 Dated: 03-11-2022				
Item Name: C-Arm Digital Flat Panel Fluoroscopy (Under Couch)				
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1	NA	Suggested by bidder	Kindly DELETE word (Under couch) from equipment name as your specs are for a mobile C Arm.	Not considered
2	NA	Suggested by bidder	Kindly clarify whether you need to use this unit as a mobile unit OR in a room in a fixed location. In case you plan to use it as a mobile unit then turnkey may not be required. Kindly clarify.	Not considered
3	Para A (GANTRY / C-ARM), point 1, pg 1	Orbital rotation movement: +/- 200 deg or more manual	Pls DELETE +/- 200 and instead write : 150 Deg (-90, +60)	No change considered
4	Para A (GANTRY / C-ARM), point 2, pg 1	Angulation: at least +/- 135 degrees manual	Kindly modify as " Angulation: Total 135 degrees or more manual	No change considered
5	Para A (GANTRY / C-ARM), point 6, pg 1	Depth of immersion: 72 cm or more	We request you to amend it as Depth of immersion: 65 cm or more.	Depth of immersion: 65 cm or more.
			Depth of immersion: 70 cm or more Reason: For wider, Broad base participation in tender participation , Kindly generalize this clause as many manufacturers have depth 70 cm as a standard and 72 cm is a company specific and trailor made specification	

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6	Para B (GENERATOR ,X-RAY TUBE & MODES), point 1, pg 1	Generator should be microprocessor controlled converter type with output of at least 12 KW or more and minimum 50 kHZ frequency	Generator should be microprocessor controlled converter type with output of at least 5 KW or more and minimum 220 KHZ frequency Reason: Frequency has the straight role with scattered / exerted radiation. Higher frequency will narrow X ray beam which will help to reduce your dose measurement and therefore, scattered radiation will much lower than in 40 KHZ and this is a reason why the advancement of High frequency systems were employed in Imaging industry. Therefore to get ripple free constant voltage this value has to be increased to have superior image quality in single expouser Biased and company specific point. Kindly generalize it. Please change this Point to 5 kw or more as maximum companies lies in 5 kw segment worldwide. Leading manufacturers like Zeihm Imaging, Siemens and Shimanzdu are also lie in this range so in an order to have better, wider , broad base Frequency has the straight role with scattered / exerted radiation. Higher frequency will narrow X ray beam which will help to reduce your dose measurement and therefore, scattered radiation will much lower than in 40 KHZ and this is a reason why the advancement of High frequency systems were employed in Imaging industry. Therefore to get ripple free constant voltage this value has to be increased to have superior image quality in single expouser Biased and company specific point. Kindly generalize it. Please change this Point to 5 kw or more as maximum companies lies in 5 kw segment worldwide. Leading manufacturers like Zeihm Imaging, Siemens	No change considered
7	Para B (GENERATOR	Capable of boost or high dose	Pls modify 60 mA as 50 mA	No change considered

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	,X-RAY TUBE & MODES), point 2, pg 1	fluoroscopic exposure of at least 60 mA	mA Range in Boosted Fluoroscopy – 20 mA or more Reason: Generally, As per ALARA , we must keep fluoroscopy/dose /mA as much as low as possible to avoid the scattered radiation. Now, Published mA range (60 mA) is contradicting with the standard norms because of asking too huge for fluoroscopy values and The utility can be easily accomplished in 20 mA (For Obesity/Bariatric) . Also, the asked value 60 mA itself claims to scatter huge radiation and may lead to various adverse problems like Skin damage, Thyroid cancer, cataract and subsequently leads to early and late effects of radiation which are like local tissue damage on skin or gonad, cytogenetic disorder. Lastly , this 20 mA clearly indicates that it's a company specific point so that other cannot take part in competition So we strongly recommend to please change the specification and have a fair & decent competition	
8	Para B (GENERATOR ,X-RAY TUBE & MODES), point 4, pg 1	Fluoroscopic kVp range: 40-120kVp, minimum 60 mA	Pls modify 60 mA as 50 mA	No change considered
9	Para B (GENERATOR ,X-RAY TUBE & MODES), point 5, pg 1	Radiographic kVp range: 40-120kVp, minimum 125 mA or more	Radiographic kVp range: 40-120kVp, 80mA or more Reason: Biased and company specific point. Kindly generalize it. C-Arm is meant for Fluoroscopy where fluoroscopy mA range matters, Radiographic mA hardly used during surgical procedure whereas Radiography mA of 20ma-30mA is sufficient to take the radiographs. Radiographic mA is defined by AERB depend upon generator performance, so please change it to 80 mA or more so that maximum companies participate in it. Maximum Companies have mA range up to the requested range. Moreover, Procuring portable x ray machine would be a better option than C arm if you keep dose value too high in C arm Tender.	No change considered

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10	Para B (GENERATOR ,X-RAY TUBE & MODES), point 8, pg 1	Anode cooling capacity should be 70 kHU/minute or higher	Pls modify 70 KHU/minute as 60 KHU/Min	No change considered
11	Para B (GENERATOR ,X-RAY TUBE & MODES), point 9, pg 1	. Tube housing heat storage capacity should be a minimum of 1500 KHU.	Pls modify 1500 KHU as 1100 KHU.	No change considered
12	Para B (GENERATOR ,X-RAY TUBE & MODES), point 14, pg 1	Multifunction foot switch to control all operating modes and single image storage out of the sterile field	Pls DELETE " all operating modes "	No change considered
13	Para B (GENERATOR ,X-RAY TUBE & MODES), point 17, pg 1	Automatic shutter positioning basis anatomy of interest & real time independent/ asymmetrical shutter positioning via touch screen mounted on C-arm	We request you to amend it as Motorized shutter positioning basis anatomy of interest & real time independent/ asymmetrical shutter positioning via control from touch screen mounted on C-arm.	No change considered
14	Para C (DIGITAL SYSTEM & IMAGE MANAGEMENT), point 11, pg 1	. Vertically and horizontally adjustable monitors for specific needs	Pls DELETE complete clause OR modify as follows :Vertically and horizontally adjustable monitors for specific needs OR monitor should be foldable and trolley on which monitors are mounted should be mobile/ manouvrable.	No change considered
15	Para C (DIGITAL SYSTEM & IMAGE MANAGEMENT), point 15, pg 2	The system should be equipped with touch screen control panel on patient table side with facility to preview images.	We request you to amend it as The system should be equipped with touch screen control panel which can be moved on patient table side and having facility to preview images.	No change considered
16	Para C (DIGITAL SYSTEM & IMAGE MANAGEMENT), point 16, pg 2	Stent boost mobile or equivalent facility in the C-arm	Pls DELETE "Stent boost mobile or equivalent facility in the C-arm" as this feature is specific to 1 firm. We request you to amend it as Stent can be viewed in image during DSA mode in the C-arm is available.	No change considered
17	Para D (FLAT PANEL DETECTOR SYSTEM), point 1, pg 2	Flat detector of CsI (Cesium Iodide) with amorphous Silicon doping	Pls modify as : Flat detector of CSI with amorphous silicon doping OR CMOS (CMOS Detectors is the most latest technology in detectors. CMOS detectors have best resolution, pixel size, DQE) .	Flat detector of CSI with amorphous silicon doping OR CMOS (CMOS Detectors is the most latest technology in detectors. CMOS detectors have best resolution, pixel size, DQE) .

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18	Para D (FLAT PANEL DETECTOR SYSTEM), point 2, pg 2	Size of the detector: min. 26 X 26 cm or better.	FPD with 23 x 23 cm or more Reason: Flat-panel detectors are a class of solid-state x-ray digital radiography devices similar in principle to the image sensors used in digital photography and video. They are used in both projectional radiography and as an alternative to x-ray image intensifiers in fluoroscopy equipment. Wider FOV provides better magnification, resolution , size (This compact size 23x23 cm provides more room for your team members to navigate, because you're gaining space between the patient and the technology. This is a definite positive whenever you're operating on larger patients, as it enables you to maintain precise control without sacrificing ergonomic sensibility during DSA) in an order to review/view the image. Further, the definition of FPD clearly signifies that the size does not require in FPD. For instance, the working principle of digital detector in x ray machine is same as in FPD so when we can use X Ray Detector size 14 x 17 inches in Mobile & Fixed X ray without any deterioration of image quality and image acquisition. Hence, the request for 23x23 cm is because of better companies to participate in it as mainly all the companies have standard detector size of 23 x 23 cm	No change considered
19	Para D (FLAT PANEL DETECTOR SYSTEM), point 5, pg 2	DQE of detector @0lp/mm: 70% or more and 16 bit digitization.	Pls DELETE 16 bit as 14 bit	No change considered
20	Para D (FLAT PANEL DETECTOR SYSTEM), point 8, pg 2	The system should be able to store at least three positions & be able to recall later if required by displaying both current position & saved position coordinates	We request you to amend it as The system is able to position manually at various positions as required in applications during surgery. Pls DELETE this clause as this feature is available only in motorised highest end systems whereas your tender specs and budget is for manual system .	No change considered

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21	NA	Suggested by bidder	Kindly consider adding a point " Detector should be from same manufacturer of C Arm (Detector costs more than 50 % of cost of C Arm so pls consider this point to avoid poor quality third party china make detectors)	Not considered
22	Para E (ACCESSORIES), point 7, pg 2	Table specifications – 1 Nos.	last lines : Kindly modify as : Table should have electromagnetic locks/sensors.	No change considered
23	Para G (Terms and condition), point 2, pg 3	US-FDA and CE (European) and AERB-type approved for the main fluoroscopy system	pls modify as : US- FDA and CE (European) and AERB type approved OR AERB NOC. We request you to amend it as US-FDA / European CEand AERB-type approved for the main fluoroscopy system. US-FDA /CE (European) and AERB-type approved for the main fluoroscopy system Reason: As per the notification F.No : Z-28018/67/2017-EPW & National heath systems Resources centre via File No : HCT/13-14/Medical device mgmt. model/10. In an order to make Indian manufacturers more empowered towards manufacturing of goods and services these amendments were made by Ministry of Health and family welfare	BIS/ USFDA/CE (European) with 4 digit and AERB-type approved for the quoted C-arm system. **Added Para:** Should have import/manufacturing license from Central licensing Authority or State licensing authority of CDSCO for Medical Devices and copy of valid license should be submitted for the quoted model. In case the vendor has not yet obtained import/manufacturing license from CDSCO for the quoted model, proof of application for CDSCO medical device license to be submitted in the bid document and valid CDSCO license to be produced at the time of supply/ NOA for the quoted model
25	NA	Suggested by bidder	Total width of 790 mm or less. (For more compactness, easily mobility of the machine within OT)	Not considered
26	NA	Suggested by bidder	Source to Image distance should be 1000 mm or more. (SID is a potential method for reducing entrance surface and effective radiation doses without compromising image quality.	Not considered
27	NA	Suggested by bidder	Low dose fluoroscopy : 0.1 to 2.5mA or less (Low dose fluoroscopy is also required for pediatric or patient with low body mass where dose reduced to half for given KVp).	Not considered
29	NA	Suggested by bidder	Should have the display of DAP (Dose Area Product) on the C arm Monitor.	Not considered

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30	Para G, point 1, page 3	Please attach the original manufacture's product catalogue and datasheets. Computer printed sheets are not acceptable	as per prebid discussion	Please attach the original manufacture's product catalogue and datasheets.		
31	Para 9, page 3	Revolving type of executive chairs with castor- Qty-04 Nos, Site fabricated workstation tables with waterproof plyboard - Qty-01Nos ,Site fabricated cupboard with waterproof plyboard (Size- 3'3'' X 7'10'')-Qty-02 Nos, Instrument trolleys- 1 No, Patient footstep – 1 no, Drug trolley – 1 no, Patient trolley with rubber foam mattress to be kept in the patient preparation room- 1 No, Dustbins (plastic with lid) to be provided- 3 No, CCTV camera with 2GB DVR, LCD monitor for facility	as per prebid discussion	Revolving type of executive chairs with castor- Qty-04 Nos, **Suitable** workstation tables with waterproof plyboard - Qty-01Nos , Wall mounted cupboard with waterproof plyboard -Qty-02 Nos, Instrument trolleys- 1 No, Single Patient footstep – 1 no, **Double foot step-1 No,** Drug trolley – 1 no, Patient trolley with rubber foam mattress to be kept in the patient preparation room- 1 No, Dustbins (plastic with lid) to be provided- 3 No, CCTV camera with **1TB D**VR, LCD monitor for facility.		
32	Para 10, pg 1	Equipped with two high-resolution 18" HD LED/LCD/TFT monitors with Diagnostic Image quality with image matrix of 1024 x 1024 or more	as per prebid discussion	Equipped with two Full HD 21" LCD/LED monitors with Diagnostic Image quality.		
33	NA	Added Para	as per prebid discussion	The cost of Site Modification Work for the area of 370 sq.ft and Air-conditioning of Tonnage 5TR (including standby unit) will be considered for Ranking /Evaluation purpose		
34	Para F(Power Specifications), pg 2	Suitable Ac to be supplied along with system - 6 Tr.	as per prebid discussion	Suitable Ac to be supplied along with system - 5 Tr.		
35	NA	NA	as per prebid discussion	**Added Para: BOQ**		
			1	C-Arm Digital Flat Panel Fluoroscopy	1	No
			4	Online UPS		
			5	18" HD Monitors	2	Nos
			6	Accessories		
			7	Zero Lead Aprons	5	Nos
			8	Thyroid Shield	5	Nos
			9	Sterile covers for C-arm	10	Nos
			10	Gonadal shields	5	Nos
			11	Lead goggles	5	Nos
			12	Table as per specification	1	No

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				site modification work Work (370 sq ft) as per specification	370	Sq. Ft.
				Air Conditioning	5	TR
				Furniture:		
			1	Executive chairs	4	Nos
			2	workstation tables	1	No
			3	cupboard	2	Nos
			4	Instrument Trolley	1	No
			5	Footstep	1	No
			6	Drug Trolley	1	No
			7	Patient Trolley	1	No
			8	Dustbin	3	Nos
			9	CCTV Camera	1	No