UNIVERSITI SAINS MALAYSIA

TO SUPPLY, DELIVER, INSTALL, COMMISSIONING & TESTING OF "X-RAY TUBE WITH MOUNTING ASSEMBLY FOR SPECT/CT"
TO INSTITUT PERUBATAN DAN PERGIGIAN TERMAJU, UNIVERSITI SAINS MALAYSIA, BERTAM, 13200 KEPALA BATAS, PULAU PINANG
TECHNICAL SPECIFICATION SCHEDULE

QUOTATION NO. : SH1/19/BM/CIPPT/U/00052

ITEM NO.	UNIVERSITY'S DESCRIPTION	QUANTITY	BIDDER'S SPECIFICATION (Please Write Your Specification In This Column)	TECHNICAL EVALUATION (FOR OFFICIAL USE ONLY)
A.	**ITEM NAME** X-ray tube with mounting assembly			
B.	**DESCRIPTIONS** X-ray tube with mounting assembly to be install with existing SPECT/CT GE Discovery NM/CT 670. This tube is designed for six sigma methodology to optimize overall tube performance while giving unprecedented tube life and reliability.			
C.	**ESSENTIAL COMPONENTS** X-ray tube with mounting assembly for SPECT/CT	1 unit		
D.	**TECHNICAL SPECIFICATIONS** 1. Should have tube insert dual focal spots with at least: a) Small (0.7 x 0.6) mm and large (0.9 x 0.9) mm b) Small 0.9 mm (W) x 0.7 mm (L) and large 1.2 mm (W) x 1.2 mm (L) 2. All stated values of length and width independently must meet NEMA (National Electrical Manufacturers Association) specifications.			

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	3. Should have target angle at least 7° 4. Should have rotor speed at least 8400 RPM 5. Should have target loading not more than 53.2 kW for 20 seconds 6. Should have thermal rating heat storage capacity for Anode at least 6300 KHU and for housing at least 5500 KHU. 7. The tube performance is not limited by the casing 8. Should have heat dissipation for Anode at least 800 KHU and tube assembly continuous at least 300 KHU. 9. Should have maximum voltage anode to cathode at least 140 kVp 10. kVp range should be from 80 kV to 140 kV 11. mA range should be from 30 mA to 400 mA 12. Should have shock resistant housing constructed from aircraft grade aluminium and should have lined with lead to minimize radiation leakage. 13. Should have head exchangers and fans to provide exceptional cooling at reduced noise levels. 14. Should have pressure switch mounted in tube housing that will automatically cuts of power to the tube assembly if oil pressure reaches a preset limit. 15. Should have high load capacity bearing and anode designs to give outstanding reliability 16. Should have metal-ceramic frame to reduced off-focal radiation and prolong the tube life 17. Should perform QC testing for CT by third party Class H Lisencing according to Atomic Energy Lisencing ACT 1984 (ACT 304).			

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E.	**STANDARD REQUIREMENTS AND INSTRUCTIONS** 18. Suppliers shall furnish a clause-by-clause commentary (detail comments) on the above requirements. The supplier who commented with texts such as "Yes", "Complied", "Refer to catalogue" or any text of this nature shall be considered as NON-RESPONSIVE. 19. The supplier shall tag and highlight in the catalogue or other related documents the statements that conform to the specification requirements. 20. The equipment supplied must be brand new with proper serial number to prove it and must not be a used or a reconditioned instrument. 21. Quotation that does not quote prices exclusive of tax will not be considered. 22. Supplier shall provide Original Catalogue of the equipment supplied. 23. Should have at least 1 year warranty. **Documentation** At least two copies of the following documents in English must be provided: 24. Operating Manual. 25. Technical Manual. 26. Performance test certificates. 27. Original Catalogue. 28. Maintenance instructions, part list and recommended spare part list. **Training** 29. The training must include theory, application and troubleshooting aspects. 30. Schematic interpretation.			