UNIVERSITI SAINS MALAYSIA

ANNUAL QUALITY CONTROL (QC) TESTING AND CERTIFICATION FOR LINEAR ACCELERATOR (LINAC), X-RAY VOLUME IMAGING (XVI) AND COMPUTED TOMOGRAPHY (CT) SIMULATOR FOR FIVE YEARS AT INSTITUT PERUBATAN DAN PERGIGIAN TERMAJU,
UNIVERSITI SAINS MALAYSIA, BERTAM, 13200 KEPALA BATAS, PULAU PINANG
TECHNICAL SPECIFICATION SCHEDULE

QUOTATION NO.: SH1/18/BM/CIPPT/U/00187

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** Annual QC testing for LINAC, XVI and CT SIMULATOR for licensing purpose.			
B.	**DESCRIPTION** A standard QC testing is required to fulfill the Ministry of Health (MOH) requirements for LINAC, XVI and CT SIMULATOR. The QC need to be done to ensure the equipment is able to perform properly. The QC certificates is important for auditing purpose by MOH.			
C.	**ESSENTIAL COMPONENTS** Not Applicable.			
D.	**TECHNICAL SPECIFICATION** D1. The QC testing for **LINAC** shall fulfill the requirements below: 1.1 The three dimensional (3D) water phantom shall include and must be suitable for LINAC testing purpose. 1.2 All the testing parameters shall refer to *Manual Pelaksanaan Program Jaminan Mutu (QAP) dalam*			

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	Perkhidmatan Radioterapi (Pindaan 2016) by MOH. 1.3 The parameters for testing as below: 1.3.1 Dosimetry 1.3.2 Multi leaf collimators 1.3.3 Wedge 1.3.4 Mechanical checks 1.3.5 Scattered radiation 1.3.6 Radiation survey 1.3.7 Radiation checks for photons and electrons 1.3.8 Safety interlocks 1.3.9 Other parameters related D2. The QC testing for **XVI** shall fulfill the requirements below: 2.1 All the testing parameters shall refer to *Manual Pelaksanaan Program Jaminan Mutu (QAP) dalam Perkhidmatan Radioterapi (Pindaan 2016)* by MOH. 2.2 The parameters for testing as below: 2.2.1 Planar kV imaging 2.2.2 Other parameters related D3. The QC testing for CT SIMULATOR shall fulfill the requirements below: 3.1 All the testing parameters shall refer to Manual Pelaksanaan *Program Jaminan Mutu (QAP) dalam Perkhidmatan Radioterapi (Pindaaan 2016)* by MOH.			

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	3.2 The parameters for testing as below: 3.2.1 X-ray generator 3.2.2 Radiation dosimetry 3.2.3 Image quality 3.2.4 Quantitative accuracy 3.2.5 Scattered and leakage radiation 3.2.6 Other parameters related			
E.	**STANDARD REQUIREMENTS AND INSTRUCTIONS** E1. The quotation shall state the price before SST, SST and after SST. E2. The service provider is obliged to provide the Class H certificate which include the certification for radiotherapy. E3. The service contract price validity must last for a period of 5 years. E4. The service provider shall bears all the cost including travelling expenses, toll, hotel, technical personnel allowances, insurance and other incidental charges during the servicing period. E5. The service provider shall use all calibrated tools during the QC testing. Proof of calibrated certificate shall be provided. E6. The service provider shall document the report for each LINAC, XVI and CT SIMULATOR and shall complete within 1-2 months from the last date of servicing. E7. The service provider shall responsible on the equipment if any breakdown happens during the QC testing period.			