

Specifications details					
SPECIFICATIONS FOR CARDIAC TREADMILL (cTMT) MACHINE					
Sr. No.	Specification	Pri-Bid Suggestion	Made by	Changes done	Justification
1	The system must support 3-, 6-, 12- and 15- lead resting and stress ECG	Please mention 12 & 16 lead resting and stress ECG	Schiller	The System must support 3-, 6-, 12- & 15/16 lead resting & stress ECG	For wider participation
		The System must Support 3-, 6-, 12 lead resting and stress ECG	Decent	The System must support 3-, 6-, 12- & 15/16 lead resting & stress ECG	For wider participation
2	The system must provide pop-up medians in post-test review to view individual QRS complexes time synchronized to leads viewed in the trend graphs				
3	The system must provide interpretative tools for resting ECG and stress ECG				
4	The system must provide risk assessment tools for SCD like T-Wave Alternans	T wave alternans is company specific. Not available with us. The unit has QT dispersion, SAECG & ST Analysis for the detection of variation in amplitude fo T wave.	Schiller	This point is being removed.	For wider participation
		The System must provide risk assessment tools for SCD like Duke treadmill Score, HRR (Heart Rate Recovery Score), RPE, VO2 Max etc	Decent	No Changes	For wider participation
5	The system must allow for ECG display speed and amplitude adjustment				
6	The system must provide ECG freeze frame during real-time display				
7	System should display running trend of ST, Heart rate and METs on the screen to evaluate patient condition during exercise phase.				

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8	The unit should have automatic NIBP measurement & upgradable to have Holter.	Holter is a separate software and can be provided separately with the same stress test system	Decent	No Changes	For Quality assurance
9	The system should include Alphanumeric PC Keyboard with system's dedicated Keypad	The System should include Alphanumeric PC Keyboard with Keypad	Decent	No Changes	For Quality issue.
10	The system should include Standard PC Mouse kit with system's integrated Trackball.	Please mentioned sustem should inbuilt standard PC, keyboard, Mouse & Thermal Printer with 21"/24" size of Monitor.	Schiller	The system should have dedicated inbuilt standard PC, keyboard, mouse & thermal Printer and monitor.	For Quality issue
		The System should include Standard PC Mouse kit	Decent	The system should have dedicated inbuilt standard PC, keyboard, mouse & thermal Printer and monitor .	For Quality issue
11	The system should include CD ROM as well as USB (With WiFi) for software up gradation.	Now CD ROM is not require, because software upgradation from USB only.	Schiller	The System should include CD ROM (may be given as external device) as well as USB (with wifi) for soft were upgradation.	For wider pasticipation.
12	The system should include at least 250 GB Hard Disk Drive to store min 1000 patients ECG data	250GB sata HD and RAM 8GB	Schiller	The System should include atleast 250 GB Hard Disk drive and RAM 8 GB.	For Quality issue
13	The system should include CDRW drive to record ECG data.	If, require we can provide external CDRW	Schiller	The System should include CDRW (may be provided externally) to record ECG date	-
14	The system should include Ergonomic Cart.	-	-	-	-
15	The system should include Built in Thermal Printer to print report on A4 size Thermal Paper.	this is company specific	Decent	No change	Many companies have this feature for quality issue.
16	The system should include Additional Laser Printer to print final summary report on A4 size ordinary bond paper.				

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17	The system should provide with built in power supply support /USP, to support uninterrupted power supply for min. 30 minutes.	Require to change 30 min backup for main unit as well as Treadmill with help of On Line UPS.	Schiller	The System should include built in power supply/USP to support uninterrupted power supply of 2 min.	
18	The system should include RS-232 port, Parallel Port and USB port	-	-	-	-
19	The system should include DC in/output	this si company specific	Decent	This point is being removed.	For wider participation
20	The system should include QRS Trigger Output	-	-	-	-
21	The system should be able to connect to the other PCs in the hospital via LAN.	-	-	-	-
22	The system should include Interface Cable for automatic operation of Treadmill.	-	-	-	-
23	The system should include Set of Std Accessories to perform Resting ECG as well as Exercise Test.	-	-	-	-
24	System's Software should consists of :	-	-	-	-
	a) Compatible Window licensed copy.	-	-	-	-
	b) Resting ECG Software with detailed interpretation statements for all 12 leads.	-	-	-	-
	c) Detailed ECG Measurement Software for 12 lead.	-	-	-	-
	d) ECG Data Management Software for storage and review.	-	-	-	-
	e) Basic Exercise Test software should provide:	-	-	-	-
	i) Enlarged QRS Complex with Superimposition technique.	-	-	-	-
	ii) Real Time Average Complex.	-	-	-	-
	iii) Real time ST Analysis in Bar Graph.	-	-	-	-
	iv) Reanalysis of final summary report.	-	-	-	-
	v) Built-in standard exercise test protocols along with min. 5 user defined protocols.	-	-	-	-

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	vi) 12 channel full disclosure – Beat by Beat analysis of complete test.	-	-	-	-
	f) Facility to import/export ECG data for HIS integration.	-	-	-	-
25	The system must provide ramped and staged, pharmacological protocols	-	-	-	-
26	The system must allow for comparison to previous procedures data including ECGs with measurement ability (callipers) of all traces	-	-	-	-
27	The system must be able to score patient test results using Duke Treadmill score	-	-	-	-
28	The system must provide full disclosure ECG and allow detailed review and measurement of full disclosure ECG	-	-	-	-
29	The system must allow full disclosure strips to be appended to final report	-	-	-	-
30	Reports can be emailed with no additional hardware or software	-	-	-	-
31	System must store at least more than 100,000 procedures as raw data available for review, medication and re-analysis	Hard disk should be 250 GB or more with RAM 8GB.	Schiller	No Change	
32	The system must be configurable for paperless documentation storage/archiving	-	-	-	-
33	The system must support viewing of final reports using non-proprietary, free software	-	-	-	-
34	The system must support saving final reports in non-proprietary format.	-	-	-	-
35	The system must have the ability to customize user setups	-	-	-	-
36	The system must be mobile	-	-	-	-
37	Should have full disclosure playback review and storage for minimum of 50 tests	Should be review only. We don't have playback facility	Schiller	Should have full test review facility and storage for minimum of 50 tests.	

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38	The system must provide a detachable patient ECG acquisition module with replaceable patient leadwires. The Acquisition module should be digital	Company specific. Require to change in built Digital ECG acquisition module with main system along with 12/16 lead patient cable.	Schiller	The system should provide inbuilt Digital ECG acquisition module with main system along with 12 lead patient cable.	For wider participation
		The system should be provided with a radio-frequency based wireless patient module with replaceable patient leadwires. It should be possible to get an	Decent	The system should provide inbuilt Digital ECG acquisition module with main system along with 12 lead patient cable.	For wider participation
39	The system must export a structured XML data export	-	-	-	-
40	The system must have customizable final report	-	-	-	-
41	The system must allow configurable color schemes to display real-time data and for final report printing to color printers	-	-	-	-
42	Final reports must be exportable from the system in Word & PDF	Final reports must be exportable from the system in PDF	Decent	No change	Insignificant issue
43	The system must support DICOM formatted report export	Require additional software.	Schiller	-	For wider participation
44	The system must provide a database backup and recovery tool	-	-	-	-
45	The system database must be sortable by procedure type, patient name, date of procedure, patient ID	-	-	-	-
		Company specific. Please delete this point. Not available with us.	Schiller	Deleted	For wider participation

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46	During procedures, user must be able to open a previous procedure for the same patient to assess baseline, peak and maximum ST depression points	Should be possible to go back/scroll back, while the test is being performed, so as to enable operator to review any beat that might have got missed OR print an arrhythmia while continuing to view the real time data.	Decent	Deleted	For wider participation
47	During the procedure, the user must be able to review procedure and patient information from the active ECG screen	Company specific. Please delete this point. Not available with us	Schiller	Deleted	For wider participation
48	The system must provide multilevel and multi-person password protected security	-	-	-	-
49	Treadmill should have 60-inch walking surface with Two Stopping Modes	Please change Treadmill should have 150 cm walking surface.	Schiller	The treadmill should have atleast 150 cm walking surface with stopping modes.	For wider participation
50	QRS Signal Averaging Software (Late Potential Software), QT Dispersion Software and XYZ Vector Cardiography software should be standard software of the unit.	SAECG, QT dispersion software and VECG as standard.	Schiller	SAECG, QT dispersion software and VECG as standard	
51	Treadmill Specification:				
	a) Automatic operation from the main unit as per test protocol.				
	b) Main unit should be CE approved for quality assurance				
	c) Treadmill should have emergency stop switch				
	d) Speed range of the Treadmill should be 0 to 13.5 mph	Please change Speed range - 0 to 18 km/h OR 0.3 to 11.2 mph.	Schiller	No change	For Quality issue
		Please change Speed range - 0 to 18 km/h OR 0.3 to 11.2 mph.	Decent	No change	For Quality issue

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	e) Maximum rates load should be 200kg and inclination Range : upto 22 Deg.	Please change Inclination range up to 20 deg.		No change	
	f) Should be able to take up to 200 kg & Inclination range .				
	g) 5KVA Servo Stabiliser or Equivalent.	5 KVA ON line UPS instead of servo srabilizer.	Schiller	No change	
	h) Treadmill belt should have minimum width of 18 inch and length of 50 inch.	Please change treadmill belt size: width 50cm (1ft 6.69 inch) & length 150cm (4ft 11.6 inch)	Schiller	No change	For Quality issue
52	Accessories :				
	a) ECG Patient Cable – 2 nos.	Please specify 12 Lead/16 Lead ECG patient Cable OR Both	Schiller	ECG patient Cable - 12 lead two nos & 15/16 lead one nos	For wider participation
	b) Thermal Paper pack for 500 patients	Please specity no. of packets	Schiller	No change	
	c) Disposable ECG electrodes for 500 patients	Please specity no. of packets	Schiller	No change	
	d) 5KVA Servo Stabiliser or equivalent.	Require to mention ON Line UPS for 30 min battery backup.	Schiller	No change	
	e) Stress belt				
53	Heavy duty treadmill should preferably from the same manufacturer.				
54	High resolution colour LCD TFT screen desirable.	Please specity screen size - 21"124"	Schiller	No change	
	10. Demonstration: The Department may ask for demonstration of actual quoted product or even for trial rse.	We can show on other site/hospital	Schiller	No change	
55	i) All software upgrade within 5 years to be provided.				
	ii) Warranty mentioned up to 5 years.				

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