



Government of West Bengal  
Office of the Principal  
Nil Ratan Sircar Medical College  
Kolkata – 700014; Phone: 033-2286-0033  
Website: [www.nrsmc.edu.in](http://www.nrsmc.edu.in); e-mail: [principalnrsmc@gmail.com](mailto:principalnrsmc@gmail.com)

Memo No. NMC/STORE/ 781

Dated: 19/02/2026

**E-TENDER NOTICE (NIT No: 29/ 25-26) FOR PURCHASE AND INSTALLATION OF  
DEFERENTS EQUIPMENTS AND INSTRUMENTS FOR THE DEPARTMENT OF PHYSIOLOGY OF NIL  
RATAN SIRCAR MEDICAL COLLEGE, KOLKATA – 14**

**(Through Pre-qualification)  
(Submission of Bid through NIC e- tender portal)**

The Principal, Nil Ratan Sircar Medical College, Kolkata – 700014, is going for e-Tender on behalf of the Health & Family Welfare Department, Government of West Bengal for obtaining the rate of equipment as per list from bonafide Manufacturer/Direct Importer/Authorized Distributors. Necessary earnest money to be submitted for participation in the Tender is appended in the table below. Exemption of EMD is applicable to agencies having valid, item specific certificate issued by appropriate authority of Govt. of West Bengal.

Serial No	Name of item	Department	Quantity	Earnest Money
1	Tread Mill (computerized)	Physiology	1 pc	Rs. 10000.00
2	Polyrite (BERA, NCV)	Physiology	1 pc	Rs. 5000.00

**All bidders must complete their technical demonstration of their quoted items within ten (10) days from the date of opening of technical bid to the concern Department.**

**1. General Instructions:**

In the event of e-filing, intending bidder may download the tender documents free of cost from the website: <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate or from the Health & Family Welfare Department's website [www.wbhealth.gov.in](http://www.wbhealth.gov.in).

**2. Submission of Bids:**

Both Technical Bid and Financial Bid are to be submitted concurrently duly digitally signed, in the website <http://wbtenders.gov.in>. All papers must be submitted in English language.

**3. Time Schedules:**

The time schedule for obtaining the bid documents, pre bid meetings, registration with the tendering authorities, the submission of bids and other documents etc. will be as per **the list provided in clause no 23** as given below. Bidder are instructed to wait for uploading any corrigendum arising during pre bid meeting, before submitting their bid online

**4. Eligibility for Quoting:**

**Only Manufacturers/direct Importers/Authorized Distributors are eligible for quoting.** The price is to be quoted in Indian Rupees including cost of insurance, packing, forwarding, freight charges, clearing charges and installation of the new instrument and exclusive of GST and other taxes which are to be quoted separately in the BOQ. Agency commission is not permissible.

## 5. Submission of Tender:

The tender is to be submitted in Two Bid System (Technical Bid or Bid A & Financial Bid or Bid B).

### (A) Technical Bid or Bid A:

#### **"BID A": PART I**

**File containing Technical Bid only - single file with multiple scanned pages containing Statutory and My documents separately.**

**(a) STATUTORY** Cover containing the following documents:

(SINGLE FILE MULTIPLE PAGE SCANNED)

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sl. No.		Page no
1	Duly filled in CHECK LIST in the prescribed format. Page number of documents must be mentioned in the check list before uploading the same.	
2	Application in the prescribed format given in Annexure I	
4	Copy of agreement between the manufacturer and the Distributor in Annexure II	
5	No conviction certificate in the form of an Affidavit as per Annexure-III	
6	A Proof of submission of applicable EMD	

**(b) NON STATUTORY/MY DOCUMENTS** Cover Containing the following documents:

Essential Requirements of the Tendering Firm for participation" shall contain all papers related to the essential requirements of the Renderer for participation in the tender viz.

Sl. No.	Category	Sub Category	Sub Category Description	Page No
A	Certificates	A1. Certificates	PAN Card of the authorized signatory	
			Professional Tax Registration certificate	
			GST Registration certificate	
B		C2 : CREDENTIAL 2	A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item.	
			List of purchaser in Govt. Institutions of repute, for last two years	
C.	FINANCIAL INFO	PAYMENT CERTIFICATE 1	Income Tax Returns submitted for the last three years	
		Audited P/L & BALANCE SHEET		
			P/L & Balance sheet of the last three years	

## **BID A": PART II**

Technical specifications of Instrument (in PDF/Excel format. Must mention Make, Model, exact features of the offered item against each point given in the specification chart). **Improper filling &/or suppression of facts/false statement will lead to disqualification and penalty in the form of permanent black listing.**

### **(B) Financial Bid B**

**COVER "B":** Separate file containing financial document only.

(a) Financial Bid: BOQ in INR (in excel sheet)

The folder marked as "Financial Bid" shall contain ALL INCLUSIVE PRICE in INR only and should include base price along with the cost of allied works and services which are to be undertaken (like installation, commissioning of equipment or PC etc.), cost of insurance, packaging, forwarding, delivery charges, clearing charges of the new instrument to be purchased. GST and any other applicable tax. should be quoted separately. Five years CAMC rate (cell no. P13) should also be quoted separately in the template for Bill of Quantities (BOQ) just for reference for future.

**However, the L1 will be determined on basic rate with cost of warranty period ( mentioned in the specification) with five years CMC . GST quoted will be directly remitted to Government account as per existing norms of Finance Department.**

**While preparing BOQ ,in basic rate column (cell no M13) ,company should quote basic rate with cost of warranty period that is mentioned in the specification.**

**If warranty period not mentioned in the specification, in that case warranty period will be treated as 01 (one) year only.**

The Tenderers are not required to submit the hard copies of Cover A (Transaction document of EMD , General Documents and Technical Specifications) .

### **6. Evaluation of Tender:**

During tender evaluation process, "Bid A" will be opened first. Those tenderers who would qualify the Statutory & Non-Statutory requirements on the basis of technical and commercial documents will be identified and "Bid B" i.e. financial bid of only those qualified bidders will be opened. Verification of hard copies of the audited balance sheet and Profit & Loss Accounts of the Tenderers for the last three years will be made if deemed necessary before opening the Financial Bid (Bid B) of the technically qualified bidders. If found suitable on the basis of above pre-qualification, the tenderer quoting the lowest rate, will be considered as successful.

### **7. Earnest Money:**

The earnest money of the tenderer is liable to be forfeited if the tenderer withdraws his tender as a whole or for any particular item or items at any stage after opening of the tender or fails/refuses to enter into written agreement for any or all of the items of his accepted bid within the time specified when requested to do so or fails to furnish Performance Bank Guarantee within the stipulated time. **EMD should be deposited online in the Pooling Account of Government of West Bengal maintained at ICICI Bank, RN Mukherjee Road Branch in the manner as prescribed in Government Order no. 3975-F(Y) dated 28/07/2016. (Order copy is available at the site-www.wbfin.nic.in)** Hard copy of Bid A should reach the office on or before the stipulated date as mentioned in clause 23.

**8. Rate:**

The price is to be quoted in INR only including cost of insurance, entry tax, packaging, forwarding, delivery charges, clearing charges and installation of the new instrument. The basic rate should be furnished inclusive of Transportation Cost, Insurance, Testing Charges, Incidental Charges etc. but excluding GST and any other applicable taxes etc. which should be quoted separately in the template for Bill of Quantities (BOQ).

**9. Order & Supply:**

The tendering authority has the liberty to ask for **performance demonstration** of any item during any stage of the tender process, before placing order for supply. In case of dissatisfaction, the authority will have the right to disapprove the offer of L1 bidder and go for the next bidder. Orders for supply of the approved products will be placed with the successful tenderers after execution of agreements and such supply shall have to be made in such installments as may be fixed or spread over the period to be specified in the supply orders to be made in pursuance of the agreements. The equipment is to be transported in such packaging so as to avoid damage to primary package of manufacturer. The successful tenderer will have to supply within the specified time schedule that had been assured at the time of selection as supplier.

**The tendering authority will be at liberty to enhance the quantity of the item tendered up to 40% of the original required quantity. Bidder will have to consider the same while bidding as supply of the enhanced quantity will be mandatory as the original one. -**

**10. Withdrawal /Cancellation & Purchase Policy of Tendering Authority:**

The tendering authority reserves the right to withdraw any item from the tender at any stage. The selection of such item, if already made in favour of any tenderer, shall be treated as cancelled. The tendering authority reserves the right to reject or accept any tender or part thereof at any stage or to split any tender without assigning any reason. Withdrawal of tender or any revision after submission of tender by the tenderer will not be allowed.

Purchase will, however be made following the existing purchase policy of the Govt. of West Bengal and its amendment(s) made from time to time. The purchase policy of the State Government as provided in the West Bengal Financial Rules, the policy of price preference in particular incorporated under Notification No. 10500-F dated 19.11.04, 5400-F(Y) Dated 25/06/2012 and subsequent relevant orders should be observed in considering the tenders.

**11. Important Instruction with regard to Submission of Tender:**

The rate should be quoted in Indian Rupees for a particular brand or model (model no. of the offered item only must be mentioned in the appropriate column of the 'Tender Form'. Alternative offer will not be accepted). The tender shall be cancelled for the quotation of item without its brand name, model, model no. etc. Detail information regarding the manufacturer and the item quoted in the 'Tender Form' should be furnished.

**12. Spare Parts:**

The Bidder will undertake that supplies of necessary maintenance equipment and spare parts will be made available for all items/equipment and the complete system for at least five years on a continuing basis. However, this does not relieve the supplier of any warranty obligations under the contract.

### **13. Guarantee / Warranty Period:**

i) The machine/Instrument should be covered by free on-site comprehensive Warranty for one year after successful installation. The tenderers must quote for 5 (Five) years' comprehensive on-site AMC of entire system (including all spares & labour) after the date of completion of free warranty period. The CAMC charges for 5 years to be quoted in the BOQ, will however be determined on extant Govt. rules in this regard.

ii.) All faults appearing and their rectification shall be periodically advised to the institute, the period being not more than two weeks.

iii.) Any lacuna or lacunae noticed in the functioning of the installation as a result of any design or other feature shall be rectified by the supplier free of cost within 72 hours of call log.

### **14. After Sales Services and Maintenance Contract:**

After sales service must be provided by the supplier, during and after warranty period of the equipment. Selected vendor will remain liable to attract penalty for violation of machine downtime as per agreement. The selected vendor or his authorized servicemen has to attend the machine within 72 hours of Call Log. It is desirable to have a fully equipped service centre in or around Kolkata.

### **15. Delivery, Installation and Commissioning**

i. Delivery of the goods at the purchaser's premises shall be completed by the Supplier in accordance with the terms specified by the purchaser.

ii. The installation, testing and commissioning of the proposed system shall be completed in accordance with the order.

iii. All items are to be delivered within six weeks from the date of placement of order.

iv. In case of distributor, the firm should be direct distributor of manufacturing unit. **Sub distributor authorization by distributor will not be accepted at all.**

### **16. Penalty Clauses:**

**PENALTY FOR FORMATION OF CARTEL OR FURNISHING OF FRAUDULENT/ MISLEADING DOCUMENTS:** If during the tender process or at any stage during the validity of the tender period, it is found that a tenderer(s) has formed a cartel in what so ever form or name to fix up the rates or suppliers to the detriment of the fairness of the tender process, penal measures shall be initiated. Similar penal measures shall also be initiated against those tenderers who have submitted false/ misleading/ fraudulent documents or made incorrect declarations. The penal measure will be forfeiture of Earnest Money, forfeiture of Performance Bank Guarantee if enlisted as a supplier in addition to any other legal action against the firm.

### **17. Appeal:**

Appeal against the decision of the Principal, Nil Ratan Sircar Medical College, Kolkata and then to impose such a penalty will lie with Tender Selection Committee. Review against the decision of the Tender Selection Committee (TSC) will lie with Health & F.W. Dept. of the Govt. of W.B. The Special Secretary/Secretary/Principal Secretary will be the appellate authority within the Department of Health & Family Welfare, Government of West Bengal. Before imposing any penalty as per clauses 20, 21 and 22 the concerned supplier may appeal to the authority citing the proper reasons for non- imposing the penalty as stated.

**18. Agreement:**

On a tender being accepted, intimation of acceptance will be forwarded to the tenderer by Principal, Nil Ratan Sircar Medical College, Kolkata. After communication of the same, the tenderer will have to execute agreement in the prescribed form with the Principal, Nil Ratan Sircar Medical College, Kolkata. In case any direct purchasing unit wishes to go for a separate agreement, the head of the purchasing unit must get written permission to that effect from his controlling authority. This present document and the tender forms filled in by the tenderer or copies thereof in so far as they are not inconsistent with these terms & conditions will be incorporated as part of the agreement. Such agreement will be binding on the tenderer.

**19. Validity Period of Agreement:**

The contract period will be for a period 01 (one) years from the date of finalization of tender **which can be extended for a further period of 6 months if Tender Selection Committee feels necessary.**

**20. Performance Bank Guarantee:**

The performance bank guarantee will be mandatory for all suppliers and will not be waived in any case. The successful tenderers shall be required to furnish the 'Performance Bank Guarantee' from any Nationalized/Scheduled Bank acceptable to Govt. of West Bengal for One year @ 10% of quoted base rate per item for which the tenderer has been selected as supplier. The performance bank guarantee will have to be renewed after completion of Free Warranty period, for additional 5 (Five) years under the paid CAMC period before transfer of the CAMC amount to bidder's account. Mentioning of West Bengal Government Pooling Account for Performance Bank Guarantee No. 000605030134 IFS Code ICIC0000006 MICR 70229002 at ICICI Bank, RN Mukherjee Road Branch, Kolkata on the body of Performance Bank Guarantee is made mandatory vide Finance Department GO No. 2691-F(Y) dated 02/05/2017.

**21. Inspection:** Before submitting the tender, the intending tenderers should thoroughly get acquainted themselves with the proposed supply and installation by local inspection of site and take into consideration the site condition and other criterion for effecting smooth supply. No claim whatsoever will be entertained afterwards.

**22. Payment Terms:**

Payment will be made electronically by Govt. of West Bengal approved system after execution of due supply and successful installation as ordered, subject to :

i. Submission of Performance Bank Guarantee in terms of Clause 20 and subject to penalty clause in terms of Clauses 16.

ii. Supply of the materials as per specification as provided in the tender documents and the catalogue. Supply of the materials must be made within the stipulated period as specified in the work orders.

iii. On being selected, the successful vendors will have to submit one application to the Principal, Nil Ratan Sircar Medical College, Kolkata stating the name of the payee/recipient, Bank account no with IFS code of the payee/recipient for making e-payment. Payment will only be released after satisfactory installation and verification of following items-

1. Supplier's invoice in original
2. Challan and installation certificate
- 3 Any other thing of importance on the discretion of College Authorities

**23. Dates & Information:**

S. No	Items	Dates
1	Date of uploading of N.I.T. Documents (online) from this end.	24.02.2026, 5.00 P.M.
2	Documents download start date (Online)	24.02.2026, 5.00 P.M.
3	Date of hoisting of documents at Departmental Website ( <a href="http://www.wbhealth.gov.in">www.wbhealth.gov.in</a> )	24.02.2026, 5.00 P.M.
4	Date of Pre Bid Meeting and workshop with the intending bidders at the office of the Principal of NRS Medical College	26.02.2026, at 12.30 P.M
5	Bid Submission starting (On line)	27.02.2026, 4.00 P.M. onwards
6	Bid Submission closing (On line)	14.03.2026 at 4 P.M.
7	Bid opening technical bid(online) (Bid A )	16.03.2026 at 4 P.M.
8	Date of uploading list for Technically Qualified Bidder (online)(Bid A)	18.03.2026, 10 A.M. onwards.
9	Date & for opening of Financial Proposal (Bid B) (Online)	To be declared later
10	Date of uploading of list of bidders along with the approved rate	To be declared later

Principal, Nil Ratan Sircar Medical College, Kolkata, reserves the right to change the above schedule in case of any exigencies after putting up a notice in the departmental website and Notice Board of N R S Medical College, Kolkata.

**24. Validity of Tender:**

- i. The tender will remain valid up to 1 (one) year from the date of finalization of tender **which can be extended for a period of 6 months**. Any objection raised by any bidder in this respect will not be entertained. No informal tenderer will be entertained in the bid further.
- ii. During the scrutiny, if it comes to the notice of tender inviting authority that the credential or any other paper found incorrect/ manufactured/ fabricated, that bidder would not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice.
- iii. Prospective bidders must take training from authorized agencies before submission of their bids.
- iv. The Tender Selection Committee reserves the right to cancel the N.I.T. due to unavoidable circumstances and no claim in this respect will be entertained.

**25. NO- CONVICTION CERTIFICATE:**

No conviction certificate in the form of An Affidavit is to be submitted in the prescribed Pro-forma as Annexure-IV attached herewith from Notary Public/ Judicial Magistrate/Executive Magistrate.

*bcy*  
*19/2/26*

Principal  
NRS Medical College  
A Kolkata-14

**CHECK LIST (MUST BE PROPERLY FILLED)**

**NOTE: For Non applicability for some documents please mention "NA" in the check list. Must be mention page number in the check list.**

S. No	Item	PI put tick or NA	Page No.
1	Application submitted in Annexure I		
2	Annexure II (Copy of agreement between the Manufacturer and the Direct Importer/Distributor)		
3	No conviction certificate in the form of an Affidavit as per Annexure-III.		
4	Income Tax Returns submitted for the last three Assessment years		
5	GST Registration certificate(not provisional)		
6	PAN Card of the organization and authorized signatory.		
7	Audited P/L & Balance sheet of last three years		
8	Technical specifications of Instrument (in PDF/Excel format. Must mention Make, Model, exact features of the offered item against each point given in the specification chart).		
9	Trade License in the name of participating firm		
10	A declaration in respect of existence of a fully equipped service centre in or around Kolkata in respect of the relevant item.		
11	A Proof of submission of applicable EMD		

**ANNEXURE-I**

**APPLICATION FORMAT**

(To be furnished in the Company's official letter pad with full address and contact no etc)

To The Principal, Nil Ratan Sircar Medical College, Kolkata-700014.

Sub: Tender No.-----Dt.------(Name of the Item -1)-----2)-----

-----3)-----4)-----

----) for purchase and installation of equipment for department of ....., Nil Ratan Sircar Medical College, Kolkata-700014.

Ref:-

Sir,

Having examined the pre-qualification & other documents published in the N.I.T, I /we hereby submit all the necessary information and relevant documents for evaluation:

1. That the application is made by me / us on behalf of.....

In the capacity of.....duly authorized to submit the offer. The authorization letter from the Company is attached in Annexure II.

2. We accept the terms and conditions as laid down in the NIT mentioned above and declare that we shall abide by it for throughout the tender period and its extensions, if any.

3. We are offering rate for the following item /items and assured supply to the Health & Family Welfare Department, Government of West Bengal as per Table-1 (Instrument Specification)

4. a. We propose that the order and bill should be raised in our name.

For liasoning, we have appointed M/S ..... having its office at ..... (Address, contact no and e mail address) as C&F agent /Liasoner /Contact person/..... Others (strike out whichever is not applicable) as per clause ..... of the NIT

b. The agreement between ourselves and the distributor/C&F/Liasoner & other documents as prescribed is attached in annexure III

5. In the event of being selected, supply will be made within the stipulated period excepting the condition which is beyond our control.

6. We understand that:

(a) Tender Selection Committee/ H&FW Dept can amend the scope & value of the contract bid under this project.

(b) Tender Selection Committee/ H&FW Dept reserves the right to reject any application without assigning any reason.

Date :-

Signature of applicant including title  
and capacity in which application is made.

Contact details -

Mobile:

E mail ID:

## **Annexure- II**

- a. Copy of agreement between the Manufacturer and the Direct Importer/Distributor in Annexure -III

### ANNEXURE-III

Draft Affidavit Proforma  
(Notarized on Rs. 100 Stamp Duty)

I, Sri/Smt. ....  
The Managing Director/Proprietor (etc.) of the Firm.  
..... (Name of the firm)  
At (address).....  
P.O... ..  
P.S.....Dist.....

do hereby solemnly affirm and declare as follows:

- a. That I am not under conviction of any offence making myself liable to be disqualified to supply of Surgical Equipments/Instruments etc. to any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States.
- b. My Firm has not been blacklisted at present as a whole or for any item/ items as quoted in this tender by any Govt. or Govt. undertaking Organization /Institution in the State of West Bengal or other State or States in India.
- c. That no case is pending against me or against my Firm in any criminal court of law in connection with the supply of Surgical/hospital equipment/Instruments to the Govt. or Govt. undertaking Organization / Institution in the State of West Bengal or other State or States ( If any case is pending, pl state the details ).
- d. *That, I declare that the item or items quoted by me confirms the specification given in the NIT document or higher standard relating to the specification is provided.*
- e. The duly authenticated Technical Data Sheet is uploaded conforming to the prescribed standard.
- f. That, I also declare that if any information subsequently found incorrect or false will it automatically render the tender submitted by me cancelled and make me liable for penal/legal action as per law of the country.
- g. That I do further affirm that the statements made by me in this tender are true to the best of my knowledge and belief and all the documents attached are genuine & correct.

Deponent

~~d. That, I declare that the item or items quoted by me confirms the specification given in~~

Specifications of EMG/NCV/EP Machine.

### Schedule - III

EMG / NCV / EP MACHINE:

Parameter	Threshold Limit / Range
No. of channel	4 or more
Sensitivity range in $\mu$ V/div	(0.1 - 500) or more
Sensitivity range in mV/div	(1 - 20) or more
Sweep speed ms/div in steps	(1 - 800) or more
Input impedance in M ohms	100 or more
Noise in $\mu$ V RMS	0.5 or more
Average (BAER) Per channel	2000 or more
Electrical range in mA	(0 - 100) or more
Duration of electrical stimulation in ms	(0.02 - 1.0) or more
Repetition rate of electrical stimulation in per second	(0.5 - 30) or more
Auditory Frequency in Hz	(250 - 8000) or more
White noise Contralateral masking in dB normal hearing level	0 - 80
Intensity of click stimulation in dB normal hearing level	(0 - 110) or more
Intensity of click stimulation in dB Standard Pressure Level	(30 - 140) or more
A/D Converter in bits	16 or more

✓  
5/1/26  
Prof. & Head  
Deptt. of Physiology  
N.R.S.M.C. Kolkata

Disposable concentric needle electrode - 25 pcs	
Adapter for needle electrode connection - 1 no.	
Adaprer for disposable electrodes connection with Alligator clip (20cm) - 2 pcs	
Jumper Electrode (Pump-jack linker) - 4 pcs	
Skin Preparation gel - 10 nos.	
Conductive paste - 10 nos.	
Selected bidder should construct necessary proper earthing at the space identified by the authority	
Shoul supply colour printer for printing of graphics and reports in A4 size paper facility	
<b>Quality Standrad and safety Certification</b>	
US FDA and European CE	

  
 30/1/26  
**Prof. & Head**  
**Deptt. of Physiology**  
**N.R.S.M.C., Kolkata**

MUST HAVE	
OS Platform (windows 7 / WINDOWS 8 / XP)	
High cut and low cut filter	
Impedence check	
Simultaneous acquisition in all 4 channels during EMG test	
Sweep speed and sensitivity can be changed after acquisition	
Screen separator for viewing M and F or H waves side by side	
User programmable rates for all stimulator	
Speaker sound can be stored and can be played on a multimedia	
Split screen facility	
Facility of reviewing EMG data with raster	
F wave separator	
Pediatic shock stimulator	
LED GOGGLES & FLASH	
EMG trigger	
Electrical Stimulator	
Adult and pediatic Headphone	
Auditory stimulus	
Video monitor facility for changing checker board size	
Facility of flash mode	
Facility of setting	
Facility of averaging	
Facility of latency intensity graph	
List of muscles for easy selection	
Facility of online guide to locate various muscles and nerves	
Click duration in 100 $\mu$ s square wave	
Square size of 2 to 32	
13 difference check sizes to be viewed in 16 difference field	
H Reflex, Blink Reflex Facility	
Repetitive Stimulation	
Necessary trolley	
Online UPS (30 minutes backup) of appropriate capacity for the entire system	
Surface electrode - 10 pair	
Stimulating bar electrode and felt stimulation pads - 1 no.	
Ring electrode - 2 pair	
Ground electrode with cable (paediatric) - 1 nos.	
Ground electrode with cable (adult) - 1 nos	

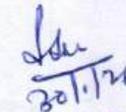
*Handwritten signature*  
20/1/20

**Prof. & Head**  
**Deptt. of Physiology**  
**N.R.S.M.C. Kolkata**

Specifications of Computerised Treadmill (Cardiac TMT)

MANDATORY TERMS AND SPECIFICATIONS	
GENERAL FEATURES	
Product Description	Cardiac TMT Machine with Monitor and Printer
Clinical Purpose	To study cardiac abnormalities in patients under stress conditions by exercising the patient on a treadmill according to a standardized protocol
Product components	Heavy-duty medical treadmill with online UPS for the whole system, Computer system, printer, Voltage stabilizer and software along with trolley system to mount computer & printer
Facility, whereby data should be able to be acquired and digitized near the patient, providing better ECG signal	Yes
TREADMILL SPECIFICATIONS	
Treadmill Type	Four tier heavy duty noise less medical treadmill with coasters having locking arrangement
Compatible online UPS for the whole system with minimum 3 hrs back up time	Yes
Stop/start button on treadmill for emergency stop	Yes
Emergency stop button (ESB) must have the ability to be located in the location of choice by the end user	Yes
Treadmill should have zero start	Yes
Automatic operation from the main unit as per test protocol	Yes
Fold down hand rails on treadmill for allowing easy and convenient assemble and installation	No
Length of Treadmill Floor (mm)	1900 to 2000mm
Width of Treadmill Floor (mm)	700 to 800mm
Length of walking area on treadmill (mm)	1500 to 1600mm
Width of walking area on treadmill (mm)	500 to 600mm
Maximum Patient Load Capacity of Treadmill (Kg)	150 Kg or more
Speed range of Treadmill	0.1 to 14 km/Hr or higher range
Inclination (continuously variable)	0 to 25 or more
Treadmill motor	AC Motor
Power requirements	220 - 240 VAC @ 50-60 Hz
Double sided polish on walking surface of treadmill for prolonged product life span	Yes
Remote keyboard operation to start, stop and increase or decrease elevation and speed of treadmill	Yes
Self-aligning anti skid conveyor belt	Yes
Communication/Connectivity	USB

①

  
 20/1/26  
 Prof. & Head  
 Deptt. of Physiology  
 N.H.S.M.C. Kolkata

Enhanced tolerance to electrical changes for greater patient safety	Yes
Self-calibrating system for speed	Yes
Inbuilt digital control issues, precise speed and grade control in the system	Yes
Delivers high torque even at low speeds which ensures no lag when the foot strikes the belt	Yes
Provide smooth power and accuracy even at slow speeds	Yes
Normal, slow deceleration and emergency stop modes on treadmill	Yes
Compatible Voltage Stabilizer provided (Minimum 3KVA)	Yes
<b>COMPUTER SYSTEM SPECIFICATIONS</b>	
Type of Monitor	LCD
Touch Screen Monitor	Yes
Size of Monitor (inch)	19 inch
RAM size	2 GB
Hard disk space	500 GB
Processor	Intel core i3
Operating System	Windows 10 or Higher
CD ROM Drive	Yes
Number of serial port	2
Number of USB Ports	4
Alphanumeric multimedia PC keyboard with systems dedicated keypad	Yes
Standard PC mouse	Yes
Built in uninterrupted power supply for minimum of 3 minutes	Yes
QRS triggered output	Yes
Parameters Displayed by the system	12 Lead raw ECG, 12 lead ST level & Slops, Enlarged QRS complex with maximum ST level, Exercise time, Target and Max Heart Rate with % of target achievement, Heart Rate & METS trends, NIBP Trends, Speed of treadmill, Protocol Name, Protocol stage, Patient info
Built in thermal printer with compatible additional laser black and white printer to print report on A4 Size thermal and A4 size ordinary bond papers respectively	Yes
Minimum Printing Speed of laser printer	20 pages / minute
Minimum Paper tray capacity of laser printer	250 Sheets
Print Resolution	600 x 600 dpi
Duplex Printing	No

*[Handwritten Signature]*  
30/1/26

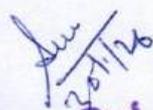
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Connectivity / interface of Laser printer	USB
Supported paper sizes	A4
<b>TRANSMISSION OF DATA</b>	
Transmission of data available through	USB
Advanced signal processing algorithms to provide exceptional accuracy in beat detection and noise rejection resulting in superior identification of events	Yes
Unique source consistency filter, reducing noise and baseline artifact while preserving a diagnostic quality ECG signal	Yes
Provision to eliminate artifacts due to respiration, muscle rub and AC interference, baseline wandering without compromising and distortion in ST segment changes	Yes
<b>PROTOCOLS</b>	
Test Protocols include Bruce, Modified Bruce, Balke, Ellestad, Naughton protocols	Yes
Facility to add user defined protocols	Yes
<b>SYSTEM SOFTWARE FEATURES</b>	
Licensed copy of windows operating system	Yes
Provision to record resting ECG & Exercise ECG	Yes
Resting ECG software with detailed automatic interpretation statement for all 12 or 16 lead resting ECG should be present	Yes
ECG data management software for storage and review	Yes
Facility to review, edit and add ECG from full discloser storage post exam	Yes
50mm sweep speed selection for ECG display in the system	Yes
Enlarged QRS complexes with superimposition technique	Yes
Automatic BP Measurement System integrated with the stress test system	Yes
Provision of real time average complexes	Yes
Provision of real time ST Analysis in bar graphs	Yes
Provision of Re analysis of final summary report	Yes
System should be able to present ST levels for 12 average complexes, slope for 12 average complexes and ST Profile	Yes
Provision of online ST measurement adjustment	Yes
Provision of reanalyzing the possibility of complete exercise test with ST/HR and NIBP trend graphically	Yes
SCD predictive tools like T-wave alternans, ST /HR hysteresis analysis	Yes

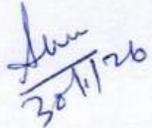
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The system should have a Borg scale, symptom and point criteria table	Yes
Full disclosure review/playback/scroll back and addition of past ECG events	Yes
ST level and slope data for lead and worst case average beat update should be available continuously during the test	Yes
Beat by beat review mode to allow full disclosure review during and post exam	Yes
QRS signal averaging software, QT dispersion software, XYZ vector-cardiography software provided as standard part of the unit	Yes
Facility to do reanalysis of scored ECG by changing line measurement point title ST and J	Yes
The system should present comprehensive final report on minute by minute record of ST segment trend	Yes
Facility of automatic arrhythmia detection	Yes
Auto calibration with digital micro process control in the system and should also be manually operable	Yes
Facility of pacemaker rhythm detection	Yes
System should be able to view comprehensive ST segment and morphology analysis in an anatomically intelligent format	Yes
ST profile, ST elevation, ST depression, heart rate, Mets, NIBP, ST index should be able to be clearly analyzed	Yes
The unit should be able to quickly identify anomalies with the dynamic zoom ST display	Yes
The system should be able to view ST maps, patented visual anatomical representations of ST deviations in-frontal planes	Yes
Monitoring of ST changes with auto comparison of current and reference beats	Yes
The system should be able to display the traces incrementally	Yes
Provision of updating ECG and ST segment changes and compare them on a pre-exercise and during exercise basis on a high resolution display	Yes
Compact digital acquisition module that virtually eliminates non-cardiac electrical noises	Yes
Provision of alarm on HR, BP & ST level	Yes
Facility to mark the ECG strip to enter comments at any stage	Yes
<b>DATA ACQUISITION AND PROCESSING</b>	

  
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Data Acquisition	12 Leads ECG Simultaneously and Display 3x4, 4x6, 6x12, 12 lead data indicate significant changes
A/D	12 bits or more
Sampling Rate	300/Sec/channel or more
Input impedance should be more than 90M Ohms	Yes
CMRR Should be more than 100 dB	Yes
Frequency response	0.05Hz to 100Hz
Patient leakage Should be less than 100µA	Yes
The system should have baseline correction	Yes
Digital filters	50Hz, 20Hz, 35Hz
<b>REPORTING</b>	
Facility to get system generated auto report	Yes
Analysis should work on total of atleast 5 protocols	Yes
No startup delay in the system ie instant ECG Reports at the push of a button should be available	Yes
Final report with configurable lead groups	Yes
Patient report include protocol, Indications, medications, target heart rate reasons for end, symptoms, diagnosis, notes and conclusions with space for personnel and physician electronic signature	Yes
Examination summary include heart rate/BP/Workload trends page, ST level trends/ST slope trends, Average QRS by stage or by minute, Mets, Maximum predicted heart rate, THR formula selection	Yes
Ability to select final report segments including patient information, exam summary, rate, BP, work trends, ST level trends, ST slope trends, average QRS and events should be provided in the system	Yes
Events should include 12 lead ECG analysis for arrhythmias and user added ECGs	Yes
Provision of customizable system generated summary report to determine the contents of report with data storage facility	Yes
Provision of Password protection	Yes
Option to create network review workstations for viewing, editing and report printing of the stress test examinations should be there	Yes
<b>ACCESSORIES</b>	
Standard Accessories, consumables provided	2 sets of 12 lead ECG patient cables, 100 Electrodes, 10 rim A4 Reporting papers
Detachable/replaceable cables and leads	Yes

  
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Minimum warranty(months) on accessories i e lead set	5 year
Appropriate sized cuffs of small, medium and large should be provided with the system	Yes
Trolley system to mount computer & printer	Yes
<b>STORAGE OF RECORDS</b>	
Storage of atleast 100 patients records	Yes
Full disclosure archive to external drive	Yes
Events/12 lead ECGs/Full disclosure	Yes
<b>ENVIRONMENTAL CONDITIONS</b>	
Operating Temperature	+10°C to + 40°C or more
Operating Relative Humidity	10% to 95%, Non condensing
Storage temperature	- 40°C to + 70°C
Storage Relative Humidity	10% to 95%, Non condensing
Operation/Storage atmospheric pressure	500 hPa to 1060 hPa
<b>CERTIFICATION &amp; REPORTS</b>	
Compliance to Medical Device Rules (MDR) 2017 as amended till date	Yes
Availability of valid drug license for the product issued from the competent authority defined under Drugs and Cosmetic Act 1940 and Rules made there under as amended till date	Yes
Valid Drug License Number	MFG/MD/2023/000892
Manufacturing unit certification	ISO:13485 (Latest)
Additional voluntary certification available	CE (NOT MANDATORY)
Availability of Test Report for product as per Medical Device Rules (MDR) 2017 as amended till date	Yes
Compliance to Safety Standards	IEC-60601-2-25 or equivalent BIS Standard
Submission of all necessary certifications, licenses and test reports to the buyer at the time of bid submission and/or along with supplies as per buyer requirement	Yes
<b>WARRANTY &amp; MAINTENANCE</b>	
Warranty in Years	5 year
Comprehensive Maintenance Contract	5 year
<b>MISCELLANEOUS PARAMETERS</b>	
OEM/Reseller shall ensure uninterrupted availability of all spares for 10 years	Yes
Availability of toll free facility for technical support maintained by OEM or authorized agencies	Yes
User/Technical/Maintenance manuals to be supplied in English in hard and soft copy	Yes

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Details of equipments and procedures required for local calibration and routine maintenance to be supplied and advanced maintenance task documentation also to be furnished	Yes
List of important spares and accessories, with their part numbers to be supplied to the buyer at the time of supplying the equipment	Yes
Installation and Demonstration of equipment and training to be provided after completing supplies before acceptance	Yes
Principal Manufacturer must have direct Presence/approved service center In India	Yes
Maximum Response time for attending breakdown/repair of the system (in days)	3
Remote service network connecting and online phone support facility	Yes

  
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