

List of items to be Purchased through Open Re- Tender 2017-18

Sl. No	Tender No.	Description of Items / Services	Bid Security Amount
1.	Gen/01/17-18/ M&E.	Sluicing Machine, Hydro Extractor Machine, Automated Sliding Double Door Steam Sterilizer with accessories, Side Loading Washing Machine and Drying Tumbler, 50 Kg Capacity – 01 No. Under buy back of old Machines	Rs.120000.00
2.	Gen/02/17-18/ M&E.	DLP Video Wall, LCD Panel with Touch Screen and controller system for R.B. Davis Hall	Rs.150000.00
3.	Gen/05/17-18/M&E	Rack Server under buy back of old servers	Rs.25000.00
4.	Gen/06/17-18/M&E	Construction of Multi-Purpose hall for Cullen & Kraepline Ward	Rs.25000.00
5.	Gen/07/17-18/M&E	Digital conference system with Spot the Speaker attachment Compatible with existing Shure make Microphone Mixer SCM 800, Amplifier 1004, Audio Processor(DFR 22)(under buy back of 24 Nos. of Table Top Button Microphone Model MX 395 series)	Rs.25000.00
6.	Gen/08/17-18/M&E	Digital and Latest Technology Dante-enabled pocket UHF Wireless system	Rs.10000.00
7.	Path lab/02/17-18/ M&E.	Automated Bio-Chemistry Analyzer under buy back of Automated Chemistry Analyzer(Ciba Corning, Model: Express plus, 1995)	Rs.25000.00

Sd/-
(Director)
CIP, Kanke,
Ranchi-834006

Section – V

1. Technical Specifications for Sluicing Machine (Stain Removal Machine), Side Loading Washing Machine, Automated Sliding Double Door Steam Sterilizer with accessories Stainless Steel Trolley for wet & Dry Linen and Drying Tumbler

Tender No Gen/01/17-18/ M&E.

1. SLUICING MACHINE (STAIN REMOVAL MACHINE) –25 kg cap – 1 no

- a. Sluicing Machine of Capacity 25 Kg per charge,
- b. It is imperative to remove all stains of blood, feces from used linen.
- c. The inner basket and outer basket made of stainless steel.
- d. DOUBLE Door design (Opposite to each other) Front Door for loading of dirty linens & Rear one for unloading washed/clean linens. For hygienic purpose, the loading (Dirty) & unloading (Clean) sides are separated with partition/wall.
- e. It is a THROUGH PASS operation like a Sluice gate valve. i.e entry on one side & out on OPPOSITE side. The purpose of Sluicing m/c is to PREWASH the unhygienic blood-stained linens which are not washed with other linens. It is capable of pre-washing and extracting soiled articles containing blood, albumin, excreta, babies nappies etc. from used linen.
- f. NOTE: Should NOT be any heating in this sluicing machine as the blood stains will get clogged up in the linen itself, if heated.
- g. Both speeds are achieved with ONE Standard single speed motor controlled by Variable Frequency Drive (VFD), which also automatically controls forward/reverse of inner basket during Wash / Rinse cycle.
- h. Variable Frequency Drive facilities to change the various speeds , duration/time of forward-stop -reverse of motor during wash/rinse cycle, i.e. Single Standard Motor for both 'WASH' & 'EXTRACTION' Cycle through VFD
- i. Electric panel consists of suitable contactors O/L relays, automatic reversal units, fuses/MCB cable glands and connectors.
- j. Standard Accessories: Water inlet valve, water outlet valve, main electric switches, electric panel with automatic reversing units for the washer and controlling units for extraction are provided. Necessary push buttons are indicating lamps are provided with front of the machine, this being the loading side.
- k. Material of construction of inner and outer cylinders, inner and outer end belts are of SS 304. End belt guards made of stainless steel. Inner cylinders sheet would be punched and embossed. Low maintenance drive system of wedge belt pulley is offered as a standard. With auto timer, digital temperature controller and indicator auto forward and reverse timers with additional facility to program timing, machine is steam heated, machine has safety door limit switches of Siemens make.

Technical Details: (25kg)

- l. Cylinder volume: 118 liters approx.
- m. Cylinder dimension: 560mm diameter x 482mm Length approx
- n. Wash Motor: 2 HP and Drive Motor: 3 HP on 3 phase, 400-440V AC
- o. Water consumption: 270 liters/hr approx.
- p. Overall Size: 1425mm length x 1050mm width x 1525mm height approx
- q. Electrical safety interlocks through limit switches are provided for both the doors to stop the machine in the event of any door being opened while the inner basket is in motion. The machine cannot be started until both the doors are firmly closed.
- r. Extraction cycle is electrically interlocked with drain valve. Without keeping drain valve open, the extraction cycle cannot be started.

2 : SIDE LOADING WASHING MACHINE, 50KG CAPACITY – 1 no

- a. Capacity: 50 Kg dry weight filling per charge, electrically operated
- b. Type: Side Loading;
- c. The inner basket and outer basket shall be made of good quality stainless steel.
- d. Inside basket door shall be provided with double locking arrangements of latches. First lock by spring action and second by turning 'T' bolt in clockwise direction.
- e. A motor drives the inner basket through set of multiple pulleys and 'V' belts.
- f. The machine shall be provided with an integrally mounted electrical control panel.
- g. Inner Basket Dimension (Minimum): 914mm Dia x 1220mm length approx.
- h. Inner Drum Volume: Minimum 800 Liters ;
- i. Large drain valve ensures faster drain of water.
- j. Wash Motor: 5 HP (3.75 KW on 415v, 3Phase, 50c/s, A.C.)
- k. The machine shall be fitted with suitable electrical heater load 36KW, to produce hot water for washing, if needed
- l. The outside basket door is interlocked electrically to ensure that the electrical drive system do not function until the door is firmly closed.

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- m. The machine shall not START if any of the door is left open
- n. The inside basket doors are designed to ensure that unless these are locked in position with the provided spring locks, the outside basket doors cannot be closed
- o. An overflow arrangement prevents the machine from flooding with water.
- p. Digital temperature controller cuts off heaters at the preset temperature automatically, thus ensuring the correct/economical use of heat energy.
- q. A foot brake with inching device helps the operator to align inside and outside doors in position simultaneously cutting off supply to the drive system. The brake locks the inner basket during loading and unloading
- r. The foot brake is interlocked electrically to ensure that the electrical drive system do not function until the brake is released.
- s. Thermal overload relays cuts off the supply to motor during overloading.

3 : HYDRO EXTRACTOR, 35KG CAPACITY- 1no

- a. Type: Three point suspensions electrically operated.
- b. Capacity: 35 Kg dry weight filling per charge
- c. Inner basket Dimension (Minimum): 760mm dia x 355mm depth.
- d. Volume: 161 Liters approx.
- e. Extractor Motor: 7.5 HP (5.5 KW) approx.
- f. Power Supply: 400-440v, 3Phase, 50c/s, A.C. Supply.
- g. The Inner and outer basket shall be made of stainless steel.
- h. The inner basket shall be designed for free rotation.
- i. All contact parts with wash load made of stainless steel.
- j. The unit shall be equipped with microprocessor based control system along with the electrical starter arrangement for drive motor to ensure highly accurate process control and safety of equipment as well as operator.
- k. Microprocessor based process controller with LED indications & following features –
- l. Single phasing, 2) Phase reversal, 3) MCB tripped, 4) OLR tripped, 5) Door Open & 6) ON/OFF switch.
- m. Process control – the system is equipped with 3nos. one touch preset process timer buttons
- n. The controller unit consists of main MCB and starter arrangement for the drive motor along with suitable Siemens make switchgears and other components.
- o. Door interlocked to drive mechanism, Air lock to prevent door opening when machine in operation
- p. Thermal overload protection for motor, outside basket shall be suspended on tough springs of machine frame so as to avoid any vibration due to uneven load on high speed.
- q. The large size drain designed for fast draining of water and avoids flooding of machine
- r. The entire machine shall be suspended to minimize vibration.
- s. The set of angular contact ball bearing ensures free rotation of inner basket and designed to accept varying axial and thrust loads at high speed.

6 ELECTRIC HAND IRON WITH TABLE- 2 nos

- a. Heavy Duty electric hand Iron with Wooden top Table on structural steel frame work.
- b. The electric hand iron is manufactured out of gun metal and cast iron.
- c. The Overall Dimensions of minimum 1525mm x 760mm x 915mm.
- d. Weight of Iron is 8Kg approx.

7. STAINLESS STEEL DRY LINEN (SORTING) TROLLEY-2 nos

- a. To carry the dry linen,
- b. Complete stainless steel construction for long rust free life.
- c. Trolley sides have pressed ribs for extra strength.
- d. Corners would be rounded for easy movement and fitted with rubber bumpers to avoid any damage.
- e. These trolleys would be mounted with 4 Nos. swiveling type rubber wheels on ball bearings.
- f. The trolley is designed for light weight, rugged and easy manoeuver.
- g. Four castors are provided in the frame.
- h. Wheels: 4" dia Thread free castors

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8. STAINLESS STEEL WET LINEN TROLLEY- 2 nos

- a. To transport / carry the wet linen,
- b. Complete stainless steel construction for long rust free life.
- c. Trolley sides have pressed ribs for extra strength.
- d. Corners would be rounded for easy movement and fitted with rubber bumpers to avoid any damage.
- e. These trolleys would be mounted with 4 Nos. swiveling type rubber wheels on ball bearings.
- f. These trolleys have a perforated S.S. mesh at the bottom are fitted with a drain valve.
- g. The front two castors are fixed type and the rear two are of swiveling type.
- h. Wheels: 4" dia Thread free castors

9. AUTOMATED SLIDING DOUBLE DOOR STEAM STERILIZER WITH ACCESSORIES – 1 no

- a. Steam sterilizer, horizontal shape, with pneumatically operated vertically sliding double doors, inner chamber volume of around 520 to 550 liters; Minimum Inner chamber dimensions-660mm width x 660mm height x 1250mm depth
- b. Vacuum pump - Should have inbuilt water-ring type vacuum pump of 3HP/5HP to provide pre-vacuum and post-vacuum pulses, to withstand negative pressure and create high vacuum of 26"hg; The sound level of vacuum pump shall be <80DP and no vibration. Vacuum pump brand shall be New Genre OR Vindi vak. This should also be fitted with suitable stainless steel condenser and piping.
- c. Material : Inner chamber - Stainless steel SS 316 quality with a minimum thickness of 6mm; Both the doors – Stainless steel SS 316 quality with a minimum thickness of 12 mm; Inbuilt steam generator – made of stainless steel SS 304 quality; All connecting pipes shall be made of good quality stainless steel; Jacket-boiler quality steel; stand-mild steel with anticorrosion paint.
- d. Electrical immersion type heaters of 18KW/36KW, equipment should be operated on 400-440 V, 3 phases with neutral, AC supply.
- e. Should provide heat resistant SILICON door gasket withstand upto 140oC.
- f. The sterilizer shall have to draw the water, automatically through a feed water pump, when needed in the inbuilt boiler.; preferably Crompton make water pump
- g. Insulation of Glass wool thickness shall be 75-100mm. Insulation cover shall be made of good quality stainless steel 304 quality
- h. Should provide analog gauges for chamber pressure and Jacket pressure; Necessary calibration certificates to be submitted during supply
- i. The sterilizer shall be fitted with Pressure switch, Contactor, solenoid valves, pressure transmitter, steam trap, water reading glass, safety valve, plug screen, vacuum drier etc..as needed
- j. Working temperature of sterilizer is 121oC to 134oC and the corresponding pressure is 1.2 to 2.1 kg/cm²
- k. Validation Port shall be provided
- l. Should have microprocessor based controls, with touch screen display; Minimum of six programmable cycles, Bowie Dick test cycle, Leak test cycle should be provided; Preferred make of HMI and PLC: Siemens / Allen Bradley / Mitsubishi
- m. Shall have digital displays of Chamber Pressure, Chamber temperature, Cycle no., Batch no., Time & Date, Alarm indicator, Error code, Low water indicator etc.,
- n. Shall have provision for RS 232 port for data communication, In-built Real Time Clock with date and time function and F0 value
- o. Should be supplied with a suitable printer that will automatically and continuously monitor and record dates, time of day, load, identification no. and operating parameters i.e. temperature, pressure and residence time, throughout the length of the autoclave cycles.
- p. Shall have necessary safety features that both doors should not open at time; Door should not open when the process is ON; Process should not start either in auto or manual if either side is open; Sterile door will open finally after completion of cycle and non-sterile door will not open unless sterile door is opened etc.,
- q. Should have suitable alarm / indications
- r. ISO 9001:2008 certified company
- s. Accessories: Qty – 1 No Stainless Steel loading / unloading carriage made of SS 316 and Qty - 2Nos. Stainless steel transfer trolley made of SS 304
- t. Documents:- User manual in English, Hydraulic test certificate, Material test certificate, IQ, OQ, DQ & PQ documents, Leak Test certificate, Gauge calibration certificate, Master Gauge calibration certificate and Warranty certificate

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1. Drying Tumbler, 50 Kg Capacity – 01 No.

- a. Type: End loading, electrically operated
 - b. Capacity: 50 Kg dry weight filling charge
 - c. Inner Basket Size (Minimum): 12000mm dia X 970 mm depth, Volume:- 1100 liters
 - d. Power Supply: 400-440v, 3 Phase, 50c/s A.C. Supply
 - e. Electrical Heater Load: 36 KW (18 KV X 2 banks)
 - f. Drive Motor: 3HP, Exhaust Motor: 2HP
 - g. The inner basket made of stainless steel. The outer basket shall be mild steel with paint
 - h. The outer basket carries an operating control panel with digital temperature controller, timer, push buttons etc. for main supply
 - i. The suitable electrical fin heater shall be provided at the top of outer basket and is designed for maximum utilization of heat.
 - j. Inner basket supported on heavy duty sealed bearings.
 - k. Self-cleaning lint screen of ample size.
 - l. Electrical interlocking of door for drive.
 - m. Dynamically balanced Aluminium impeller fan directly mounted on motor shaft.
 - n. The machine will be stopping automatic at the end of preset time thus ensuring correct use of dryer.
 - o. A timer for automatic forward-reverse rotation of drive motor is provided in the control panel.
 - p. Auto timed by digital timer with illuminated display of lapse time.
 - q. Auto-reverse prevents entanglement of linen also ensures faster drying
2. The system delivery should include installation on turnkey basis with dedicated onsite training to end users by the authorized representatives from the principal manufacturers.
 3. The required electrical & water supply arrangement (if required) for all above machines should be done by the supplier.
 4. The installation charges of equipment must be quoted separately in Price bid.
 5. Warranty must be 5 years and Installation on turnkey basis. ISO / CE certified.
 6. You should also quote your rates for CMC/AMC of the machine for the next five years after expiry of 05 years warranty period. A firm assurance of manufacturer to be given regarding the supply of spares/ accessories for 5 years after the warranty period.
 7. Buyback price must be quoted for our existing machines as mentioned below from Sl No (i) to (iv), failing which tender proposal would be deemed un responsive.
- (i) Sluicing Machine (Make: ILDE, Model: SSM/30/E, Sl. No. 3488, Capacity: 15 Kg.) -- 01 No.
 - (ii) Flat Bed Press (Make: ILDE, Model: FB/P, Sl. No. 3493) over all Dimensions: 1525 x 1120 x 1575 MM) - 01 No.
 - (iii) Horizontal High Pressure Rectangular Sterilizer electrically operated (for sterilization & drying of Linen) Size: 600 x 600 x 1200 MM Depth (Automatic, Make: Nat Steel, Model: 24 SR/E/HP/HV, Sl. No. 846) -01 No.
 - (iv) Horizontal High Pressure Rectangular Sterilizer electrically operated (for sterilization & drying of Linen) Size: 600 x 600 x 1200 MM Depth (Non Automatic, Make: Nat Steel, Model: 24 SR/E, Sl. No. 772) -01 No.
 - (v) Hydro Extractor (Make: Nat Steel, Model: ILDE, HE/20, Sl. No. 3490, Capacity: 15 Kg.)-01 No.

Section-V

Technical Specification for DLP Video Wall , LCD Panel with Touch Screen and controller System for R.B. Davis Hall

Tender No Gen/02/17-18/ M&E.

1. DLP Video Wall

Sl. No.	Specification Item	Detailed Specification Description
I.	Configuration	CUBES OF 70" DIAGONAL CONFIGURATION COMPLETE WITH COVERED BASE STAND (At least 6 Nos.)
II.	Cube & Controller	Cube & controller should be from the same manufacturer
III.	Reputed Company	The OEM should be an established multinational in the field of video walls and should have installations around the country
IV.	Chip Type	1-chip 0.95" Digital micro mirror device
V.	Resolution	1920x 1080 native DMD chip resolution
VI.	Light Source Type	LED light source with separate LED array for each colour (RGB)
VII.	Brightness	Minimum 700 lumens
VIII.	Brightness Uniformity	≥ 90 %
IX.	Dynamic Contrast	1200000:1 or more
X.	Redundant Dual Power Supply	Cube should be equipped with a built in dual redundant power supply. Redundancy should be provided for LED light Source, Power supply and driver circuit to ensure nonstop functioning of critical applications
XI.	Hot Swappable Power Supply	The inbuilt power supply should be hot swappable
XII.	Control	IP based control to be provided
XIII.	Remote	IR remote control should also be provided for quick access
XIV.	Screen to Screen Gap	≤ 0.2 mm
XV.	Screen Support	Screen should have an anti-reflective in nature which should not bulge, shrink with change in temperature and humidity
XVI.	Control BD Input terminals	Input: 2 x Digital DVI
XVII.		Input: 1 x HDMI
XVIII.		Input: 1 x HD-BaseT
XIX.		Input: 1 x Display Port
XX.		Output: 1 x Digital DVI
XXI.		It should be able to take input of 4K resolution
XXII.	Cooling Inside Cube	Cooling inside the cube should be done using advance cooling mechanism preferably by means of a heat pipe
XXIII.	Source Redundancy	System should able to switch to HDMI input if primary DVI input is not available.
XXIV.		System should also automatically switch back to primary DVI input from HDMI input as soon as the primary DVI input is available again.
XXV.	Auto color adjust function	Should provide auto color adjustment function
XXVI.		Should be sensor based
XXVII.		Should have the facility to be switched on or off as per user requirement
XXVIII.		The sensor should be installed on top of the engine after the projection lens so that the tolerances of all the glass parts may be accounted for before making the auto adjust
XXIX.	Maintenance Access	Rear
XXX.	Cube Size	Each cube should have a screen size of 1550 mm wide and 872 mm or higher
XXXI.	Cube control & Monitoring	Video wall should be equipped with a cube control & monitoring system
XXXII.		Should be able to control & monitor individual cube , multiple cubes and multiple video walls
XXXIII.		Provide video wall status including Source , light source ,temperature, fan and power information
XXXIV.		Should provide a virtual remote on the screen to control the videowall
XXXV.		System should have a quick monitor area to access critical functions of the video wall
XXXVI.		User should be able to add or delete critical functions from quick monitor area
XXXVII.		Automatically launch alerts, warnings, error popup windows in case there is an error in the system
XXXVIII.		User should be able to define the error messages
XXXIX.		Automatically notify the error to the administrator or user through a pop up window and email
XL.		Status log file should be downloadable in CSV or similar format as per user convenience

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2. Wall management Software (Latest Version to be supplied)

Sl. No.	Specification Item	Detailed Specification Description
I.	Scaling and display	Software to enable the user to display multiple sources in any size and anywhere on the display wall.
II.	Auto Source Detection	Software should support for auto source detection
III.	Layout Management	Should support for Video, RGB, DVI, ,Internet Explorer, Desktop Application and Remote Desktop Monitoring Layouts
IV.	Scenarios	Software should able to Save and Load desktop layouts from Local or remote machines
V.	Layout Scheduler	All the Layouts can be scheduled as per user convenience
VI.		Software should support auto launch of Layouts according to specified time or event by user
VII.	Layout Preview	Software should support layout preview option
VIII.	Launch Application	Software should be able to support
IX.	Integration with 3rd party devices	System should offer interface to enable control from 3rd party devices like Creston ,AMX etc.
X.	Live Preview	Software should able to provide live preview of video wall
XI.	Work space allocation	System should provide functionality to the administrator to define and allocate work space for a particular operator or a group of operators when working on a Video wall
XII.	Authentication	Software should offer various levels of Authentication (User accounts, Permissions for functionality & Roles etc).
XIII.	Offline Layouts	It should be possible to create offline layouts
XIV.	User friendly	Software should be user friendly
XV.	Ticker	Ticker message can be positioned anywhere on the display wall. Inside the ticker window, font size, colour and background can be set
XVI.	Ticker Type	Software should able to prepare three kinds of tickers: text ticker, RSS ticker and time ticker
XVII.	SNTP	System should support SNTP function
XVIII.	Protection	System should have Hardware License key to protect the software from unauthorized access.

3. 84" LCD Panel with Touch Screen :

Sl. No.	Specification Item	Detailed Specification Description
I.	PANEL	02 Nos.
II.	LCD Size	84"
III.	Light source	LED Backlight
IV.	Resolution (Pixels)	UHD 3840 X 2160
V.	Brightness (typ)	350 cd/m2
VI.	Contrast Ratio(typ)	1600:1 (typ)
VII.	Response Time (typ)	8ms
VIII.	View angle	178°(H) / 178°(V)
IX.	Life Time	50,000 hrs (min.)
X.	View area	1860.48 X 1046.52mm
XI.	Colors	1.06Billion
XII.	TOUCH	
XIII.	Touch Technology	IR Touch
XIV.	Touch Point	6 Points
XV.	Tempered Glass	4mm
XVI.	Response Time	10ms
XVII.	Touch Method	Finger or touch pen
XVIII.	INTERFACE / INPUTS	HDMI IN x 3, 4K x 2K x 2, VGA x 1, PC-AUDIO x 1, Y PB PR x 1, LAN x 1 AV x 1, TV IN x 1, TV-MIC x 1, HDMI OUT x 1, AV OUT x 1, EARPHONE x 1, COAXIAL x 1, TV-AUDIO x 1, RS232 Remote Control, RS232-IN x 1, RS232-OUT x 1, MEDIA-USB x 2, PC-USB x 2, TOUCH-USB x 2
XIX.	SPEAKER	10W X 2

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4. Controller System to control the Video Wall with Video Wall management System Software

Sl. No.	Specification Item	Detailed Specification Description
I.	Display & Controller	Display & Controller should be from the same manufacturer
II.	Reputed Company	The OEM should be an established multinational in the field of video walls and should have installations around the world(at least 5 National & 5 Local installation reports)
III.	Display controller	Controller to control 12 displays with 12 outputs ,4 Universal inputs(DVI+HDMI) , 4 Video and 1 Audio in & out along with necessary software's
IV.	Chassis	19" industrial Rack mount
V.		Lockable front door to protect drives
VI.	Operating System Platform	Window 7- 64 bit or latest
VII.	Processor options	Xeon i7 or better
VIII.	RAM	Std. 32 GB DDR3 or higher
IX.	HDD	Support upto minimum 2 HDD
X.		Std.: 1 TB or above
XI.	Networking	Dual-port Gigabit Ethernet Controller inbuilt
XII.		Supports Add on copper/ optical fiber adapters
XIII.	Input / Output supported	Serial ATA
XIV.		LAN
XV.		2x RJ45 LAN ports
XVI.		USB 3.0 port
XVII.	RAID	RAID 0, 1 support
XVIII.	Power Supply	(1+1) Redundant hot swappable
XIX.	Cooling	Forced cooling
XX.	Indicators	LED's for HDD activity and Power status
XXI.	Switches	Power On/Off and System Reset
XXII.	Monitoring options	CPU, FAN, Temperature
XXIII.	Accessories	DVD +RW ,Keyboard and mouse
XXIV.	Voltage	100-240V @ 50/60 Hz
XXV.	Redundancy support	Power Supply
XXVI.		HDD
XXVII.		Cooling FAN
XXVIII.		LAN ports
XXIX.	Scalability	Display multiple source windows in any size, anywhere on the wall
XXX.	Control functions	Brightness / contrast / saturation/ Hue/ Filtering/ Crop / rotate
XXXI.	Outputs	12 DVI
XXXII.	Resolution support	DVI: 1920x1200 RGB: 2048x1536
XXXIII.	Universal Inputs & Formats	At least 4 type of universal inputs DVI /RGB/HDMI/VGA
XXXIV.	Video input	4 Composite Video Inputs
XXXV.	Format	NTSC/ PAL
XXXVI.	Audio input/ output	1
XXXVII.	Supported Input Type	DVI/ RGBHV/VGA/HDMI/Component video/HD-SDI/ Network / RSS feed / Ticker
XXXVIII.	Accessories	DVD-R,DVD+RW,, Keyboard, mouse
XXXIX.	Power Supply	(1 + 1) Redundant AC-DC high-efficiency power supply
XL.		AC Voltage 100 - 240V, 50-60Hz

5. **Installation and commissioning of work includes:** It is on turnkey basis to provide high tech Collaborative Room Design for Virtual Class Room, Movie Club Session, Control Room, and Meeting Room, Case Conference and Seminars and related activities.
6. Implementation of Collaborative Room equipped with existing Audio and visual system, existing video conferencing in High Definition based on unified networks.
7. Common platforms in which we can teach hold seminar and connected through video conferencing manage it as control room.
8. It covers centralized systems which serve all the purpose towards making a collaborative Room
9. **Detail Scope of work**
 - A. Supply, Installation, Configuration & Maintenance of all Hardware Equipment under development of R.B. Hall as a high Tech Collaborative Room Project
 - B. Commissioning, Installation, Integration of collaborative Room with the existing Networks of CIP
 - C. Setup, installation & maintenance of systems Video wall with controller.
 - D. Some of the important activities of the System Integrator are as given below:

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10. **Implementation Strategy:** - The project aims to deliver integrated services and functionality related to any type of virtual connectivity as well as the latest visual and audio solutions. R.B.Davis Hall has to be developed as high tech collaborative room design for Virtual class room, Movie Club session, Control Room, Board Room, Meeting Room, Case Conference and Seminar. The project would naturally involve a roll out in which all elements will be bundled together, viz. Supply, Installation, configuration and commissioning of all the hardware and maintenance support.
11. The system delivery should include installation on turnkey basis with dedicated onsite training to end users by the authorized representatives from the principal manufacturers.
12. Warranty must be 5 years.
13. You should also quote for CMC / AMC for the next five years. A firm assurance of manufacturer to be given regarding the supply of spares/ accessories for 5 years after the warranty period.

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Section – V
Technical Specification Rack Server
Tender No Gen/05/17-18/ M&E.

1. RACK SERVER

Form Factor	2U Rack	01 Nos
Processors	Intel® Xeon® E5-2609v4(2.1Ghz) processor or better , Processor sockets 2	
Memory	16X 2 GB DDR4 2400 Mhz (Max Memory 12 DIMMS)	
HDD	1*300 + 1.2 TB GB SAS (2.5 inch with 3.5 inch carrier) *LFF Hot Plug SAS/SATA	
LAN	1GbE BASE-T X 2	
RAID inbuilt	RAD 0,1,5 + 1GB cache	
DVD	DVD writer	
Power supply	2X inbuilt	

2. KVM switch

17" Rack LCD console with Integrated 8 port analog KVM switch with keyboard & mouse	01 Nos
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3. Accessory

Accessory	Keyboard + Mouse + 18.5" LCD monitor quote separately	01 Nos
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4. Windows Server

Software	Windows Server 12 or better	01 Nos
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1. The system should comply with ISO standards
2. The system delivery should include installation on turnkey basis with dedicated onsite training to end users by the authorized representatives from the principal manufacturers.
3. Warranty must be 5 years.
4. Should also quote for CMC / AMC for the next five years. A firm assurance of manufacturer to be given regarding the supply of spares/ accessories for 5 years after the warranty period.

Note: - You should also quote your rates for buy back of Server Acer Altos G700-02 nos., Server Acer Altos G710-01 No., Server Procom Server-01 No. Apple Computer with all its accessories, & software-01 No.

Section – V
Technical specification for Construction of Multi-purpose hall
Tender No Gen/06/17-18/ M&E.

A. Construction of Multi-Purpose hall behind of Cullen ward

1. Hall Measurement: LXWXH=40'X20'X11.5'=800 Square feet
2. False ceiling with 16 pcs of LED Philips Lights 25 watt in it and 9 pcs of Crompton wall fans with 32 amp Main Switch Box connected with nearest electric line at the site.
3. The hall Bricks wall is of 10 inches X 4ft height with fiber glass bamboo Clady
4. Flooring should be done with good quality vitrified tiles length 40 feet, width 20 feet.
5. At entry side Aluminium door 6'X4'; Aluminium door frame Size: 2.5"X1.5"X1.5mm.
6. Another Aluminium Door in attached hall Size: - 6'X3', Aluminium door frame Size: 2.5"X1.5"X1.5mm.
7. Metal pipe structure 2"/4" pipe, heavy duty 12 gage 4 ft. interlocking floor blocks at surrounding outside area
8. 6 Seater Canteen Table Stainless Steel (LXWXH: 72" X 35" X 30") - 7 set for 40 patients.
9. Aluminium Grill and Glass fiber bamboo section on Cladding over.
10. Mount down roof top 16mm glass fiber sheet with FRP molded bamboo cladding
11. Wash Basin for hall (Stainless Steel-304 grade)- 1 pcs(size: 24"X18") with one taps
12. Hand Wash Basin (Stainless Steel- 304) size: 36"X18"with 4 taps.
13. All Electrical connection in hall should be done through nearest available electrical point.
14. Water connection in hall should be done from nearest available water tank line
15. Drainage line in hall should be attached with nearest big drain.

B. Construction of Multi-Purpose hall behind of Kraepeline ward

16. Hall Measurement : LXWXH=35'X25'X11.5'=875 Square feet
17. False ceiling with 18 pcs of LED Philips Lights 25 watt and 10 pcs of Crompton wall fans with 32 amp, Main Switch BOX connected with nearest electric line at the site.
18. The Hall Bricks wall is of 10 inches X 4ft height with fiber glass bamboo Clady.
19. Flooring should be done with good quality vitrified tiles length 35 feet, width 25 feet.
20. At entry side Aluminium door 6'X4' Aluminium door frame Size: 2.5"X1.5"X1.5mm (Jindal),
21. Another Aluminium Door in attached hall 6'X3'Aluminium door frame Size: 2.5"X1.5"X1.5mm (Jindal)
22. Metal pipe structure 2"/4" pipe, heavy duty 12 gage.
23. 4 ft. interlocking floor blocks at surrounding outside area
24. 6 Seater Canteen Table Stainless Steel (LXWXH : 72" X 35" X 30") - 10 set for 60 patients
25. Aluminium Grill and Glass fiber bamboo section on
26. Cladding over, mount down roof top 4mm glass fiber sheet.
27. Roof top FRP molded bamboo cladding.
28. Wash Basin for hall(Stainless Steel-304 grade)- 1 pcs(size: 24"X18") with one taps
29. Hand Wash Basin(Stainless Steel- 304) size: 36"X18" with 4 taps
30. All Electrical connection in hall should be done through nearest available electrical point.
31. Water connection in hall should be done from nearest available water tank line.
32. Drainage line in hall should be attached with nearest big drain.

Section – V

Technical Specification for Automated Bio-Chemistry Analyzer

Tender No. Path.Lab /02/17-18/M&E.

1. The Instrument should be floor model fully automated random access clinical chemistry analyzer for biochemical investigation, enzymes, turbidimetry, TDM, DOA parameter & electrolyte (using ISE) on serum, Plasma, urine, CSF & others.
2. It should have spot photometry and potentiometric with true open system for all parameters.
3. It should have throughput of minimum 800 or above photometric test/hour with ISE 400 test /hour
4. It should be able to perform test of HbA1c using anti coagulated whole blood.
5. Sample volume 1.0 25 ul, diluents volume 10 ul approx.
6. System should have facility of sample clot detection, sample level detection.
7. Prevention of sample carries over-deionized water and one deterred solution with contamination Avoidance parameters.
8. System assay type-End point, Rate, Fix point
9. System should have with minimum 12 wave lengths or up to 13 wave lengths Range from 340 to 800 nm light pass: polychromatic split (grating) after passing the cuvette silicon photodiode array with built in pre-amplifier
10. System should have reagents 1, 2 - 76 or more positions, refrigerator (4 to 12° degree C) compartment with bottle detector.
11. The system should have 3 stand-alone probes, One for sample, Two probes for R1 & R2 reagents.
12. The system should have facility for reagent bottle with capacity minimum 15 ml, 30 ml, or above to support test specific typical volume requires any time during operation.
13. The system should have reusable cuvette to ensure deionized water washing and cleaner solution with contamination avoidance parameters.
14. Water consumption requirement of 25 ltr or less.
15. The system should have suitable UPS & Deionizer (Optional items to be needed)
16. Buyback price must be quoted for our existing instrument Automated Chemistry Analyzer, Ciba corning model Express plus year of installation Feb. 1995., failing which tender proposal would be deemed un responsive.
16. The instrument should be only of standard company and should have good performance record for at least 5 years in Central Government Hospitals.

Note:-

1. Installation, testing & commissioning should be done on site on turnkey basis.
1. The instrument should be supplied with all standard accessories and instruction manual.
2. Warranty 5 years.
3. AMC / CMC rates must be provided for 5 years after the warranty period.
4. A firm assurance of manufacturer to be given regarding the supply of spares / accessories for 5 years after the warranty period.

Section – V

A. Technical specification for Digital conference system Compatible with existing Shure make Microphone Mixer SCM 800, Amplifier 1004, Audio Processor(DFR 22)(under buy back of 24 Nos. of Table Top Button Microphone Model MX 395 series) Tender No Gen/07/17-18/ M&E

1. Central Controller Unit with stabilized Poser supply unit

- Fully digital audio transmission of floor plus 31 interpretation channels and 8 conference microphone audio channels in a single digital bus cable structure using shielded CAT5e cable
- OLED display on the front enables the user to setup basic system configurations in terms of maximum number of speakers/requests, microphone operation mode etc.
- TCP/IP Ethernet connection for web browser control integration with optional SW 6000 software suite or third party external control system
- Multi-language web browser for system configuration, microphone/request list control and basic operational parameters via tablet or computer
- Built-in seat table for attaching seal number and name to unit using web browser, 2 analog audio inputs
- 8 Analog audio outputs for distribution of audio from eight groups of units the floor channel or the interpreter channels
- Connection for emergency evacuation message (EEM) is available using Audio in 2 and a contact closure switch is
- Firmware upgrade of the entire system is possible via a PC
- Power up to 60 units without additional power supply
- Long life, low noise built-in temperature regulated fan
- Horizontal orientation of air stream for easy stacking of unit is 19* racks
- External control possible via a simple to use protocol for external control over Ethernet
- Using DCS-LAN a proprietary high speed all digital audio channel, data and power bus
- Four DCS_LAN chains powered by one external PS CU power supply
- Versatile test program available for testing the system performance, the conference units and the interpreter sets
- Video follow-audio camera control with optional camera control

2. Table Top Microphone for Chairman/Delegate Unit

- Standard Discussion unit for chairman, delegates or interpreter, fully digital audio transmission,
- Daisy Chain topology with loop through connections or star topology using junction boxes
- DCS –LAN connection by use of CAT 5e (or higher) F/UTP or U/FTP cabling Maximum 250 discussion units per system
- Support for 4 microphone operation modes, Automatic, FIFO, Manual and VOX(Voice activation)
- Support for delegate interrupt ability modes enabling pin pong mode Auto off of microphones
- Lockable XLR gooseneck microphone connector, 1 high-quality loudspeaker, 1 headphone connector with volume control 1 headphone connector with volume control supporting the floor channel
- Microphone and function (all delegates off mute) buttons Exchangeable button overlay for changing the button labels to other languages and other functionality Optional use of cable clamp to fix the DCS-LAN loop through cables

3. Gooseneck Detachable Microphone:- Electret microphone capsule in slim design, excellent frequency range, integrated light ring with the most powerful light indication on the market RF resistant, XLR Connector, 2 length 40 cm and 50 cm, Mikes should not get interfered by Cell phones

4. Connector:- Black STP Cat 5e with RJ45 special Connector for connecting the Chairman/Delegate unit, speaker, Controller unit speaker cable and cabinet to each other

5. Wireless Hand Held or Lapel(collar) wireless Microphone:- Available frequency between 698 – 787 MHz, Operation range 18 mtrs to 75 mtrs, Audio Frequency response 50 Hz to 15 KHz, Max output level – 19 dBv (XLR)- 6d Bv (¼”), Hand Held wireless system Mic. With should be in built transmitter and diversity receiver, lapel wireless system should have one miniature collar microphone, 01 no pocket transmitter and diversity receiver, Dynamic range: Should have channel selection system, S/N ratio -> 100 decibel, Distortion less than 1%, Power supply 9V/2 XAA battery and 12V DC supply, Should have one balanced (XLR) and one unbalanced (Jack) output.

B. Technical Specification for Spot the Speaker attachment for Digital Conferencing system

1. Camera Control Software, for Spot the Speaker.

2. Zilt Zoom remote Camera Zoom Video:- VI-D70/W EVI-D70P & EVI-D70P/W Signal system NTSC PAL Image sensor 1/4-type EX-view HAD CCD Number of effective pixels (H x V) 768 x 494 752 x 582 Horizontal resolution 470 TV lines (wide end) 460 TV lines (wide end) Lens 18x zoom, f=4.1 mm (wide) to 73.8 mm (tele), F1.4 to F3.0 Horizontal angle of view 2.7° (tele end) to 48° (wide end) Minimum object distance 10 mm (wide end), 800 mm (tele end) Minimum illumination 1 lx (F1.4) Auto exposure Auto/Manual/Priority AE, Exposure compensation, Back-light compensation Shutter speed 1 to 1/10,000 s Gain Auto/Manual (-3 to +28 dB, 2 dB steps) White balance Auto /TAW/Indoor Outdoor/One push/Manual S/N ratio More than 50 dB Pan/tilt Pan: ±170° (Max. speed: 100°/s), Tilt: -30° to +90° (Max. speed: 90°/s) Position preset 6 positions Picture effect Neg. Art, Black & White Video output VBS, Y/C Control terminal RS-232C (8-pin mini DIN) control (VISCA)/RS-422 (9-pin) control (VISCA), baud rate: 9.6 Kb/s, 38.4 Kb/s Power requirement DC 10.8 to 13.2 V Power consumption 12 W Operating temperature 32 to 40 °F (0 to 40 °C) Storage temperature -4 to +140 °F (-20 to +60 °C) Dimensions (W x H x D) 5 1/4 x 5 3/4 x 5 3/4 inches (132 x 144 x 144 mm) Weight 2 lb 2 oz (950 g) Body color Black, White Supplied accessories AC adaptor, IR remote commander unit, Ceiling bracket, Operating instructions Optional accessories RM-BR300 remote controller with joystick

Continued to next page No....(2)

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3. Six input Seamless switcher:- A. VIDEO INPUT Number/signal type 4 RGBHV, RGBS, RGsB, RGBcvS, component video (interlaced or progressive), S-video, composite video 1 component video (interlaced), S-video, composite video 1 S-video, composite video, or optional digital component video (SDI or HD-SDI) Resolution range Autoscans 640x480 to 1920x1200, 480p, 576p, 720p, 1080i, 1080p VIDEO PROCESSING Encoder (for scan converted output) 10 bit digital[/lbi-b-Ing] Digital sampling (for program and preview outputs) 24 bit, 8 bits per color; 13.5 MHz standard (video), 194 MHz standard (RGB)/[lbi-b-Ing] VIDEO OUTPUT Number/signal type 2 scaled RGBHV, RGBS, RGsB, HD YUV component video program outputs 1 scaled RGBHV, RGBS, RGsB, HD YUV component video preview output 1 optional output in one of the following formats: • DVI • 3G/HD-SDI (SMPTE 292 M) • scan converted output (interlaced component video, S-video, composite video) Scaled resolution 640x480,1,2,3,4,5,6, 800x600,1,2,3,4,5,6, 852x480,1,2,3,4,5, 1024x768,1,2,3,4, 1024x852,1,2,3,4,1024x1024,1,2,3, 1280x768,1,2,3,4, 1280x1024,1,2,3, 1360x768,1,2,3, 1365x768,1,2,3, 1365x1024,1,2, 1366x768,1,2,3, 1400x1050,1,2, 1600x1200,1,2, HDTV 480p,2,10, 576p,1,5, 720p,1,2,8,9,10, 1080p,1,2,7,8,9,10, and 1080i,1,2,10 1864x1050,1,2, 1280x800,1,2,3, 1440x900,1,2,3, 1680x1050,1,2, 1080p Sharp2 , and 1920x1200 * SDTV: NTSC, PAL (with optional scan converter output card 1 = 50 Hz, 2 = 60 Hz, 3 = 72 Hz, 4 = 96 Hz, 5 = 100 Hz, 6 = 120 Hz, 7 = 24 Hz, 8 = 25 Hz, 9 = 30 Hz, 10 = 59.94 Hz * 1920x1200 is available only on units shipped after first quarter of 2009. Switching type Seamless switching (cut, wipe, or dissolve) SYNC Input type Auto Detect (RGBHV, RGBS, RGsB), and component Output type RGBHV, RGBS, RGsB Tri-level on Y, R-Y, B-Y channels of component video or bi-level on Y channel of component video (selectable) Standards NTSC 3.58, NTSC 4.43, PAL, SECAM Optional SDI/HD-SDI input: SMPTE 259M-C, SMPTE 292M Polarity Positive or negative (selectable) AUDIO:- Gain Unbalanced output: -6 dB; balanced output: 0 dB Frequency response 20 Hz to 20 kHz, ±0.05 dB THD + Noise 0.05% @ 1 kHz at +4 dBu and 0 dB gain S/N >83 dB (typical) at maximum output (unweighted) Crosstalk <-80 dB @ 1 kHz, fully loaded **B. AUDIO INPUT**:- Number/signal type 6 stereo, balanced/unbalanced Input gain adjustment -18 dB to +24 dB AUDIO OUTPUT Number/signal type 3 stereo, balanced/unbalanced (2 program, 1 preview) Maximum level (Hi-Z) >+21 dBu, balanced or unbalanced at 1% THD+N Maximum level (600 ohm) >+15 dBm, balanced or unbalanced at 1% THD+N CONTROL/REMOTE — SWITCHER Serial control ports 1 RS-232/RS-422: 1 rear panel 9-pin female D connector 1 RS-232: 1 front panel 2.5 mm mini stereo jack Ethernet control port 1 RJ-45 female connector Web server Up to 200 simultaneous sessions 16 MB nonvolatile user memory Program control Extron control/configuration program for Windows® Extron Simple Instruction Set (SIS™) Microsoft® Internet Explorer® ver. 6 or higher, Netscape® Navigator®, Telnet GENERAL Power supply Internal Input: 100-240 VAC, 50-60 Hz Power consumption 35 watts Mounting Rack mount Yes, with included brackets Enclosure dimensions 3.5" H x 17.5" W x 12.0" D (2U high, full rack wide) (8.9 cm H x 44.4 cm W x 30.5 cm D) (Depth excludes connectors and knobs. Width excludes rack ears.) Product weight 8.5 lbs (3.9 kg) Regulatory compliance Safety CE, c-UL, UL EMI/EMC CE, C-tick, FCC Class A, ICES, VCCI NOTE: All nominal levels are at ±10%. For complete specifications, please go to www.extron.com Specifications are subject to change without notice. 04-2012 68-1284-01 REV. C1 Letter - English - NP Model Version Description Part number IISS 506 Standard Version 60-742-01 ISS 506 SC Scan Converted Output 60-742-03 SS 506 DI/DVI SDI/HD-SDI Input, DVI-D Output 60-742-12 ISS 506 DI/SC SDI/HD-SDI Input, Scan Converted Output 60-742-13 ISS 506 DI/3G-SDI SDI/HD-SDI Input and 3G-SDI Output 60-742-16

4. Video splitter (1 x4), branded 42" Led Monitor, Special cables for cameras, seamless withcer vido splitter, monitor etc with proper casing and other materials
5. Only vendor who is able to quote and deliver all equipment/machines will be considered.
6. The system should comply with CE and IEC standards and quality. Device should be CE 93/42/EEC marked and meet the following standards: EN 60601-1-1, EN 60601-1-2, EN 60601-1-26
7. The system delivery should include installation on turnkey basis with dedicated onsite training to end users by the authorized representatives from the principal manufacturers.
8. Warranty must be 5 years.
9. Should also quote for CMC / AMC for the next five years. A firm assurance of manufacturer to be given regarding the supply of spares/ accessories for 5 years after the warranty period
10. Buyback price must be quoted for our existing 24 Nos. of Table Top Button Microphone Make: Shure, Model MX 395 series)

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Section-V

Technical Specification for Digital and Latest Technology Dante-enabled pocket UHF Wireless system:-

Tender No Gen/08/17-18/ M&E

1. Access Point Transceiver:-

- The eight-channel MXWAPT8 uses automated frequency coordination To assign clean frequencies to wireless microphone transmitter.
- Works with Microflex® Wireless and devices equipped with, Dante™ digital networked audio Allows power to the unit via a single Ethernet cable
- Features AES 256-bit encryption for secure transmission and bi-directional wireless capabilities Includes MXWAPT8, paint cover, mounting plate, USB memory stick, and user guide
- Compact design and slim profile (7"×7"×11/2") with paintable cover
- Can be powered over Ethernet by the Audio Network Interface, Plenum rated for installation flexibility, 2-, 4- or 8-channel models, up to 40 compatible channels per room in standard mode
- High Density mode doubles the max. number of transmitters, up to 80 channels
- Bi-directional wireless for both audio signal and control data, Automated frequency coordination, Dante™ digital networked audio enables audio routing over Ethernet to any Dante- enabled equipment, AES-256 encryption

2. Audio Network Interface:-

- 4 or 8 block connector channel outputs • 1 or 2 mono
- block connector inputs for return channel audio
- 4 port gigabit switch with optimized port configurations
- Power over Ethernet (PoE) connection to the Access Point Transceiver
- Front panel controls allow adjustment of input and output levels and channel muting and soloing
- Supports Dante™ networking of digital audio for low latency transport and recording
- Headphone output to solo audio channels

3. Boundary transmitter Low-profile rechargeable Wireless boundary microphone flexible placement on any surface or pocket

- Available with cardioid or omnidirectional pickup patterns
- Low battery indicator LED
- Earphone output for return channel audio
- Concealed power switch prevents accidental powering off

4. CAT5 e Cable 50 mtr roll as per requirement

5. Cat 5 Connector as per requirement

6. Network charging station

- Versatile 2-, 4- and 8-bay chargers include docking USB charge ports that accept any Microflex Wireless transmitter*.
- Ethernet system connection supplies remote battery status monitoring via the control software and easy transmitter linking to the Access Point Transceiver.
- Connects to the system over Ethernet
- Monitor remaining battery life and charge levels in hours and minutes over the network
- Easy linking of docked microphones to Access Point Transceivers
- Charges to full in 2 hours; 50% charge in 1 hour
- Front panel LEDs report 10, 25, 50, 75 and 100% levels

7. Only vendor who is able to quote and deliver all equipment/machines will be considered.

8. The system should comply with CE and IEC standards and quality. Device should be CE 93/42/EEC marked and meet the following standards: EN 60601-1-1, EN 60601-1-2, EN 60601-1-26

9. The system delivery should include installation on turnkey basis with dedicated onsite training to end users by the authorized representatives from the principal manufacturers.

10. Warranty must be 5 years.

11. Should also quote for CMC / AMC for the next five years. A firm assurance of manufacturer to be given regarding the supply of spares/ accessories for 5 years after the warranty period.