

NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE (NABI)

(Deptt. of Biotechnology, Ministry of Science & Technology, Govt. of India)

Knowledge City, sector-81 Mohali-140306, Punjab, INDIA

Website: www.nabi.res.in, Tel: 0172-5221300

CORRIGENDUM

Tender: NABI/7(67)/2017-Works

NAME OF WORK: Supply, Installation, Testing and Commissioning work of Audio-Visual System for Auditorium and Executive Director's Conference Room at NABI campus, sec-81, Mohali -Punjab, India.

It is hereby informed to all that the Minutes of Pre-Bid Conference (PBC) held on 21-08-17 regarding the above mentioned tender/work are uploaded on NABI website w.e.f 02-09-17. The incorporated clarifications/corrections as per the PBC in the Schedule-D (schedule of items) are also attached with this Corrigendum for your further reference please. All the prospective bidders are therefore requested to kindly refer to the Minutes of PBC before submission of tender and submit the price bid as per the incorporated Schedule-D (Schedule of items) enclosed.

The Last date of receipt of this tender is hereby extended upto 15-09-2017 (upto 3:00pm). The Tenders will be opened on 15-09-2017 at 3:30pm.

Manager-Admin

SCHEDULE –D (INCORPORATED PRE-BID CLARIFICATIONS/CORRECTIONS

AS PER PRE-BID CONFERENCE(PBC) HELD ON 21-08-17)

(SCHEDULE OF ITEMS)

FINANCIAL/PRICE BID FORMAT

We hereby quote the following price for taking up the tendered work:

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
PART A- AUDITORIUM							
AUDIO SYSTEM							
1	Supply, Installation, Testing & Commissioning(SITC) of Loudspeakers having Power handling capacity: 500W (2000W peak) or better, Nominal Impedance : 8Ω or better , Sensitivity (SPL/1W @ 1m) : 95 dB SPL or better, Maximum SPL@1m: 122dB SPL or better, Frequency response : 59 Hz – 16 kHz or better, Frequency Range : 59Hz - 18 kHz or better, Nominal Dispersion of 90deg.(H)x 40deg.(V) or better , Transducers size: HF- 1.4" or better, MF- 4.5" or better , LF-10" or better complete as per the site requirement	Nos.	2				L Acoustics/ d & b Audiotechnik/Bose
2	SITC of Loudspeaker U type flying Bracket accessories kit(for indoor use)	Nos.	2				

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
3	SITC of Stage Monitor speakers having Frequency Response of 70 Hz to 16 kHz or better, Frequency Range of 55 Hz to 18 kHz or better, Nominal Dispersion Angle of 40°(H) x 60°(V) or better, Long-Term Power Handling of 200 W RMS (800 W peak) or better ,Sensitivity (SPL/1 W @ 1m) of 90 dB SPL or better , Maximum SPL @ 1 m of 113 dB SPL or better, Transducers size: HF -1.4" or better, LF-5.25" or better complete as per the site requirement.	Nos.	2				L Acoustics/ d & b Audiotechnik/ Bose
4	SITC of Subwoofers having Power handling capacity of 700W (3000W peak) or better, Frequency Response of 37Hz to 115Hz or better, Nominal Dispersion: Omni directional or better, Sensitivity (SPL/ 1W @ 1m) : 98 dB SPL or better, Maximum SPL@1m: 127dB SPL or better, Transducers size: LF-18" or better complete as per the site requirement	Nos.	2				L Acoustics/ d & b Audiotechnik/Bose
5	SITC of loudspeakers having Frequency Range: 80Hz to 16kHz or better, Frequency response of 90Hz to 16kHz or better, Sensitivity(SPL/ 1W @ 1m): 91dB-SPL or better, Maximum SPL@1mtr.: 114dB-SPL or better, Long-Term Power Handling 150W RMS(800W peak) or better, Transducer size:HF-1", LF-8" or better complete as per the site requirement	Nos.	2				L Acoustics/ d & b Audiotechnik/Bose

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
6	SITC of Recessed ceiling mounted type loudspeaker having Frequency Response of 80Hz - 17 kHz or better, Frequency Range of 70Hz - 19 kHz or better, Nominal Dispersion: 125° conical or better , Long-Term Power Handling of 40 W RMS or better, Sensitivity (SPL / 1 W @ 1 m) of 87 dB SPL or better, Maximum SPL @ 1 m of 103 dB SPL or better, Nominal Impedance:08ohm or better, Transducer size:4.5" or better complete as per the site requirement	Nos.	2				AUDAC/APART AUDIO/BOSE
7	SITC of 04 channel Class D Power Amplifier having maximum power output per channel(all channels driven): 4x1000W @ 4ohm or better, Frequency response: 20 Hz to 20 kHz or better , Signal-to-Noise Ratio > 102 dB or better, THD < = 1% or better with all required features complete as per the site requirement	Nos.	2				L Acoustic/ d & b Audiotechnik/Bose
8	SITC of Audio Digital Signal Processor (DSP) having minimum of 08input and 08output channels, Sampling rate of 48kHz or better, Frequency response: 20Hz to 20kHz or better, THD < 0.006% or better, Dynamic Range: >108dB(A weighted) or better along with the programmable remote network controller for the DSP with LED display and DC Power supply adaptor and other accessories complete as per the site requirement.	Nos.	1				Biamp/BOSE/ Symetrix/ BSS Audio

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
9	SITC of Mixing Console having Frequency response: 20Hz to 20kHz or better, Total harmonic distortion: < 0.06% @ 1kHz, Noise parameters- Mic Input EIN(maximum gain): -128dBu (150 ohm source) or lesser, Residual output Noise :-102dBu or lesser, Cross Talk(1kHz) < -90dB, Input Channels:-20 channels-Mono(Mic/Line): 12 , Mono/Stereo[MIC/LINE]:4, Stereo[LINE]:0 ,Output Channels- STEREO OUT: 2, MONITOR OUT: 1,PHONES: 1,AUX SEND: 4,GROUP OUT: 4,Bus- Stereo: 1, GROUP:4, AUX: 4 complete or better as per the site requirement	Nos.	1				Soundcraft/Yamaha /Allen & Heath
10	SITC of Hand held wireless microphone system having rack mounted type receiver with RF frequency range of 516MHz to 832MHz or better, frequency response(microphone) of 25Hz to 18kHz or better, Microphone type: dynamic, Signal to Noise Ratio > 105dB(A), Total Harmonic distortion(THD)<0.9%, Polar Pattern :Cardioid or better, Sound pressure level(SPL): 154dB SPL(max) or better, Antenna Inputs:2xBNC sockets. The system shall include 01No. handheld transmitter, 01No.rack mounted receiver, 01No.microphone clip,01No. power supply unit, 2Nos.Antennas, 2Nos. stacking elements, 2Nos.AA size batteries with operating time of minimum 8hrs. or better complete as per the site requirement	Nos.	2				SHURE/Clear One / Sennheiser/ Beyerdynamic

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
11	SITC of Headworn mic application vocals system having rack mount type receiver with RF frequency range of 516-832MHz or better, Microphone Frequency Response of 25Hz to 18kHz or better, Signal to Noise Ratio > 105dB(A), Total Harmonic distortion(THD)<0.9%, Polar Pattern :Cardioid or better, Sound pressure level(SPL): 150dB SPL(max) or better, Antenna Inputs:2xBNC sockets. The system shall include 01No. handheld transmitter, 01No.rack mounted receiver, 01No. headset microphone,01No. power supply unit, 2Nos.Antennas, 2Nos. stacking elements, 2Nos.AA size batteries with operating time of minimum 8hrs. or better complete as per the site requirement.	Nos.	1				SHURE/Clear One / Sennheiser/ Beyerdynamic
12	SITC of Lapel mic system having rack mount type receiver with RF frequency range of 516-832MHz or better, Microphone Frequency Response of 25Hz to 18kHz or better, Signal to Noise Ratio > 105dB(A), Total Harmonic distortion(THD)<0.9%, Polar Pattern :Cardioid or better, Sound pressure level(SPL): 130dB SPL(max) or better, Antenna Inputs:2xBNC sockets. The system shall include 01No. bodypack transmitter, 01No.rack mounted receiver, 01No. clip-on microphone,01No. power supply unit, 2Nos.Antennas, 2Nos. stacking elements, 2Nos.AA size batteries with operating time of minimum 8hrs. or better complete as per the site requirement.	Nos.	2				SHURE/Clear One / Sennheiser/ Beyerdynamic

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
13	SITC of Goseneck Microphone system having polarised condensor microphone with stand having LED lighting ring and ON/OFF switch, Frequency response of 40Hz to 13kHz or better , Polar pattern: Cardioid or better , Maximum SPL: 112dB or better ,Equivalent noise level 32dB (A) or less, Length of the mic shall be 450mm or better complete as per the site requirement.	Nos.	2				SHURE/Clear One / Sennheiser/ Beyerdynamic
14	SITC of Instrumental Microphone having Frequency response of 20Hz to 17kHz or better , Polar pattern: Cardioid or better, Sensitivity in free field (no load @1kHz): 6mV/Pa or better with microphone clamp, pouch etc. or better complete as per the site requirement.	Nos.	2				SHURE/Clear One / Sennheiser/ Beyerdynamic
15	SITC of Vocal Wired Microphone having Frequency response : 40Hz to 16kHz or better, Polar pattern: Cardioid or better, Sensitivity in free field (no load @1kHz): 1.8 mV/Pa or better with microphone clamp, pouch etc. or better complete as per the site requirement.	Nos.	4				SHURE/Clear One / Sennheiser/ Beyerdynamic
STAGE LIGHTING SYSTEM							
16	SITC of Mixer controller for stage lighting system complete as per the site requirement	Nos.	1				JIA/Altman

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
17	SITC of Spot light having Features :Gobo Shake, Focus, 8 Facet Prism, Prism Rotation Control Ch :16 DMX 512 channels Voltage :AC100~250V, 50~60 Hz Life span :2000 hours Lamp :7R 230W Lamp Scan :Pan: 540°, Tilt: 270° Color wheel :17 plugged colors + white Gobo wheel :14 plugged gobos + white Prism :8 prism, atomization effect Strobe :15 / second Focus :Electronic liner focus at 0°-3.8° complete as per the site requirement	Nos.	4				JIA/Altman
18	SITC of LED PAR lights having Control Channel : 6 DMX 512Ch. LED : 3w x 54 pieces 3 in 1 Gross Weight : 2.85 Kg. approx. CH 1: Red : CH 4: Strobe CH 2: Green : CH 5: Dimmer CH 3: Blue : CH 6: Speed	Nos.	10				JIA/Altman
19	SITC of Signal Cable : 2+1 with shielded PVC Insulated CU Conduction Signal Cable	Nos.	200				Krystals/klotz
PROJECTION SYSTEM							

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
20	Supply, Installation, testing and Commissioning of LASER Projector having display system: 3LCD/1chip DLP/1chip DMD type with light source- Laser diode/Laser Phosphor, Minimum Light output -7000 ANSI lm, Aspect ratio- 16:10 or better , Replacement cycle of 20000hrs. or better, screen size: 50" to 600" or better, Contrast Ratio 8000:1 or better, Maximum display resolution: WUXGA 1920 x 1200 dots or better, Input terminals- HDMI input x 01 No.(HDCP supported), DVI-D input connector x 01No.(supported HDCP), Optional adaptor slot (For HD BaseT 3play-Video, Control, Ethernet), LAN ports: RJ-45 x 01No., 10BASET/ 100BASE-TX with other additional ports/features, wireless remote controller, power cord and other accessories etc. complete as per the site requirement for the complete functioning.	Nos.	1				SONY/ PANASONIC/ /CHRISTIE/BARCO
21	Supply, Installation, testing & Commissioning of WUXGA model Standard Focus Zoom Lens suitable for Screen size of 50" to 400" or better, throw distance of 7mtr. to 15mtr. complete as per the site requirement	Nos.	1				SONY/ PANASONIC/ CHRISTIE/BARCO

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
22	Supply, Installation, testing and Commissioning of Ceiling Mount Bracket for Projector installation, Extremely flexible design to fit all approved make Projectors, Quick release universal mount for Projector, 360 degrees Rotate for Projector complete as per the site requirement	Nos.	1				
23	Supply, Installation, testing & Commissioning of 220" diagonal size, Motorized Projection screen of Matt White Fibre glass fabric and RF based Remote Controller, Image Format-16:10 or better. It should have Universal mounting brackets for easy installation as per the site requirement.	Nos.	1				DRAPER/ GRANDVIEW/ DALITE
24	Supply, Installation, testing & Commissioning of 55" screen size(measured diagonally) Full HD Resolution(1920x1080 pixels), Professional LED display, HDMI X 2, VGA X 1, Video IN X 1, USB X 2, Audio IN X1, Audio Out X 1, SPDIF X 1, 20W in built speaker, 100 Hz BLB, IPS LED display, USB media player etc. complete as per the site requirement	Nos.	3				LG/PANASONIC/ SAMSUNG/SONY
25	Supply & Installation of Customised stand for 55" LED display with provision of tilting the screen upto 45deg. minimum	Nos.	1				

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
26	Supply, Installation, testing and Commissioning of Projector having 3LCD/1 chip DLP, WUXGA display system with light source- Ultra high pressure Mercury lamp of minimum 280W, Light output- minimum 5000 ANSI lm, Aspect ratio: 16:10 or better , Zoom/Focus- Manual/Powered, Throw ratio: 1.5:1 to 2.2:1 or better, Manual Lens Shift, Lens Shift Vertical range : +/-5% or better, Lens shift Horizontal range: +/- 4% or better, Filter cleaning / replacement cycle: 2000 H or better in Standard mode, Screen size 40" to 300" (measured diagonally) or better, Contrast Ratio- 2500:1 or better, Maximum Display resolution:1920 x 1200 dots or better, Input terminals: HDMIx1Nos., HD base Tx1No.,RGB / Y PB PR input connector: Mini D-sub 15-pin (female)x 1No., S-video input connector: Mini DIN 4-pinx01No.,Monitor output connector: Mini D-sub 15-pin (female), RS-232C connector: D-Sub 9-Pin (male), LAN ports:RJ45, 100BASE-TX (Shared with HD BaseT), with other additional ports/features, wireless remote controller, , UHP lamp , power cord and other accessories etc. complete as per the site requirement for the complete functioning.	Nos.	1				SONY/ PANASONIC/ CHRISTIE/BARCO
27	Supply, Installation, testing and Commissioning of Ceiling Mount Bracket for Projector installation, Extremely flexible design to fit all approved make Projectors, Quick release universal mount for Projector,360 degrees Rotate for Projector LOAD CAPACITY: 10kg complete as per the site requirement	Nos.	1				
28	SITC of (9ft x 5 ft) Motorized Screen, FB: Fiber Glass Matt White Fabric,With RF based Remote controller complete as per the site requirement	Nos.	1				DRAPER/ GRANDVIEW/ DALITE

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
29	Supply, Installation, testing & Commissioning of 32" screen size(measured diagonally) Full HD Resolution(1920x1080 pixels), Professional Smart LED display, HDMI X 2, VGA X 1, Video IN X 1, USB X 2, Audio IN X1, Audio Out X 1, SPDIF X 1 20W in built speaker, 100 Hz BLB, IPS LED display, USB media player complete as per the site requirement	Nos.	1				LG/PANASONIC/ SAMSUNG/SONY
30	Supply, Installation, Testing & Commissioning of 8x8 HDMI to HDBT Matrix switcher having minimum Inputs of 8Nos.x HDMI (female), 9Nos. infrared on 3.5mm mini jacks, 1No. RS232 on a 9pin D sub connector, 1No. ethernet on an RJ45 connector or better, Outputs of 8Nos. x HDMI (female), 8 x HDBaseT (RJ45), 9 Nos. infrared on 3.5mm mini jack or better, Max. data rate: 6.75Gbps or better, Audio support: upto 7.1 channels@192GHz or better, Resolution support upto 4K or better, with all built-in features complete as per the site requirement.	Nos.	1				KRAMER/ CRESTRON/ EXTRON/ ATLONA
31	SITC of HDBT receiver with range upto 70m(230ft) at 2K & 40m(130ft) at 4K UHD resolutions or better, Max. data rate: upto 10.2Gbps or better, HDMI and HDCP compliant, supports point to point or point to multi-point distribution with Input output ports(HDMI & RJ-45 connectors) & built-in features complete as per the site requirement.	set	4				KRAMER/ CRESTRON/ EXTRON/ ATLONA

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
32	Supply, Installation, Testing & Commissioning of Free Standing/Floor Mounted type Digital Podium built of 1.6mm CRCA Steel sheet, screw less chasis, polymer powder coated, Wooden Top, All directional wheels with lock, Display feature- Highly Sensitive, Built-in interactive Capacitive touch Monitor with Tilt facility, Screen size-19"(interactive type), Color LED, scratch resistant, antiglare & overlay tampered vandal resistant glass(3mm) , In-built minimum i3 computer with 1TB HDD, 2GB RAM, OS-Windows-10 SL with Anti-virus software (1 year license) etc., Annotation software, RFID authentication system, Space & technical provision for additional devices like laptop, Visualizer, keyboard, mouse etc. complete as per the site requirement.	Nos.	1				EVOTA/UNIVESO/ATDSC
VIDEO RECORDING SYSTEM							
33	Supply, Installation, testing & Commissioning of video station with recording, streaming and webcasting simultaneously, built-in 6 Inputs (2 x HDMI / VGA; 4 X IP LAN), HDMI / VGA Out, Resolution-1080p, can record upto any four inputs simultaneously in a single frame, Video Input Channels: HDMI/VGA-2channels; Full HD Network camera: 4channels, Different recording and projection preview, Built-in 1 TB Hard disk, Playback feature, Lecture Editing feature etc. complete as per the site requirement.	Nos.	1				LUMENS/SONY/PANASONIC

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
34	Supply, Installation, testing & Commissioning of full HD PTZ Camera with Output resolution: Full HD 1080p, Frame rate: 60 Fps, 20X Optical Zoom or better, 12X Digital Zoom or better, 128 Presets, DVI-I out, Ethernet out, C-Video Out, Audio In, Camera Control Interface: RS-232/422 /Ethernet, Panning Angle: -170° to +170° or better, Tilting angle: -30° to +90° or better, Focal length: f= 5 to 50mm or better, Horizontal viewing angle: 56.5deg. or better, Aperture: F1.8 to 3.0 or better, Auto/Manual Gain control feature, Image Flip feature, Exposure control feature, Minimum Object distance: 100(wide) to 1000(tele)mm or better, white balance feature complete as per the site requirement	Nos.	3				LUMENS/SONY/ /PANASONIC
35	SITC of Joystick Camera Controller: Joystick for PAN/Tilt/Zoom and Focusing of cameras complete as per the site requirement	Nos.	1				LUMENS/SONY/ /PANASONIC
ACCESSORIES							
	SITC of following Accessories:						
36	Patch cable step-down HDMI to VGA 15pin	Nos.	4				Krystals/klotz
37	High Quality Mic Stand, Heavy Base,Stainless Steel Heavy Pipe Heavy Clamp, Round Shape Base Table Stand	Nos.	1				
38	Floor Stand, Height: 920-1500 ,Base Dia: 230 mm, Weight: 5.67kg,Solid end with standard 5/8-27 threads.	Nos.	1				

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
39	Main AUDI Pop up box- Input HDMI, LAN, VGA, socket-5A	Nos.	3				GIGATRON/LEGRA ND/KRAMER
40	Main AUDI XLR/Spekon Flush Box & face Plate	Nos.	6				GIGATRON/ LEGRAND/ KRAMER
41	Speaker Cable : 2 core 2sq mm PVC Insulated CU Conduction Loudspeaker Cable	Nos.	500				Krystals/klotz
42	600x800 24u Rack wall mount, Front Glass door, include fan and mounting accessories,	Nos.	1				DIGITAL/ GIGATRON/ RITTAL
43	UL listed connectors for interconnection of equipment.	Nos.	1				NEUTRIK
44	Signal Cable : 2+1with shielded PVC Insulated CU Conduction Signal Cable	Nos.	200				Krystals/klotz
45	RJ6 coaxial cable ,Conductor:solid bare copper ,Insulation:solid PE or physical foam PE Sheath:PVC 1.5GHz 75ohm GY/T135	Mtr	300				Krystals/klotz
46	HDMI Cable 3mtr Solid 10% Gold Plated LGC Conductors,Low Jitter, Low Distortion Audio,Signal Conductors Controlled for Digital Audio Direction	Nos.	10				DAC/AERO/KOING
47	SITC of Cat6 Cable 4 twisted pair cables 100 ohms,LSZH sleeve: zero halogen,U/UTP,Color Blue 300mtr	Roll	1				LEGRAND/ D LINK/ SCHNEIDER ELECTRIC
PART B- ED CONFERENCE ROOM							

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
48	SITC of loudspeaker having Power handling of 40W RMS or better , Nominal Impedance : 8 Ω or better , Sensitivity (at 1W @ 1m) : 87 dB SPL or better, Maximum SPL: 103 dB-SPL (@ 1m @ rated power) or better , Frequency range : 80 Hz – 16 kHz or better, Nominal Dispersion: 120deg(H)x 120deg(V) or better , Transducer size:4.5" or better complete as per the site requirement	Nos.	2				AUDAC/ APART AUDIO/BOSE
49	SITC of recessed type ceiling mounted Full range loudspeaker having Frequency Response : 120Hz - 16kHz or better, Frequency Range :100Hz - 16kHz or better, Nominal Dispersion :140° conical or better, Long-Term Power Handling of 16 W (64 W peak) or better, Sensitivity (SPL / 1 W @ 1 m) 84 dB SPL or better, Maximum SPL @ 1 m: 96 dB SPL or better, Transducer size: 2.25"or better complete as per the site requirement	Nos.	6				AUDAC/ APART AUDIO/BOSE

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
50	SITC of Boundary layer embedded microphone having bi-color LED lit ring for status indication , Polar pattern:Cardiod, Frequency response of 40Hz to 20kHz or better, Sensitivity: 10mV/Pa or better, Maximum SPL: 125dB or better, Equivalent Noise level: 28dB(A) or better, Connector: XLR 5 type. The microphone shall be supplied with additional microphone button having bi-color status indications(for Toggle ON/OFF, Push to mute, Push to talk & Permanent ON) , XLR-5M connector, M20 thread along with XLR inline switch box for controlling microphones in four programmable modes(Toggle ON/OFF, Push to mute, Push to talk & Permanent ON) or better complete as per the site requirement	Nos.	19				SHURE/ Sennheiser/ Beyerdynamic/ Clear One
51	SITC of 02channel Power Amplifier having power output : 2 x 50 W @ 4 Ω or better, Frequency Response: 50 Hz - 20 kHz or better, THD+N ≤0.5 % or better, Signal to Noise ratio>80dB or better with all built-in features complete as per the site requirement	Nos.	1				AUDAC/ APART AUDIO/BOSE

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
52	SITC of Multi Channel Power Amplifier(minimum 08channels) having Maximum Power Output : 50W per channel(@4ohm) or better, 30W per channel(@8ohm) or better, Signal-to-Noise Ratio (20Hz~20kHz @ rated power): > 85dB, THD + Noise (20Hz~20kHz @rated power): < 0.2% or better, Frequency Response (20Hz~20kHz): +0/-1dB or better with all built-in features complete as per the site requirement	Nos.	1				AUDAC/ APART AUDIO/BOSE/ BIAMP
53	SITC of Teleconferencing Digital Signal Processor(DSP) having minimum 08balanced mic/line inputs & minimum 04balanced mic/line outputs, Frequency Response :20Hz~20kHz (+0.5dB/-1dB) or better ,THD+N (20Hz~20kHz): Line level: < 0.01%, Mic level: < 0.05%,EIN (20Hz~20kHz, 66dB Gain, 150Ω): -125dBu or better ,Dynamic Range (20Hz~20kHz, 0dB): > 105dB or better, Maximum Input: +20dBu or better, Maximum Gain: 66dB or better, Input Gain Range (variable): 0 - 66dB or better, Maximum Output: +24dBu or better,Full Scale Output Level (six selections): -31dBu ~ +24dBu or better complete as per the site requirement	Nos.	2				BSS AUDIO /BOSE/BIAMP/ Symetrix

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
54	SITC of Videoconferencing(VC) Digital Signal Processor(DSP) having minimum 08balanced mic/line inputs(i/c 01No.VC input) & minimum 04balanced mic/line outputs, Frequency Response: 20Hz~20kHz(+0.5dB/-1dB) or better, THD+N (20Hz~20kHz): Line level: < 0.006% or better ,Mic level: < 0.05% or better, EIN (20Hz~20kHz, 66dB Gain, 150Ω): -125dBu or better ,Dynamic Range (20Hz~20kHz, 0dB): > 105dB or better ,Maximum Input: +20dBu or better, Input Gain Range (variable):Mic/Line Inputs: 0 - 66dB or better, Codec: 0 - 18dB or better, Maximum Output: +24dBu or better, Full Scale Output Level (six selections): -31dBu ~ +24dBu or better complete as per the site requirement	Nos.	1				BSS AUDIO /BOSE/BIAMP/ Symetrix
55	SITC of Hand held wireless microphone system having rack mounted type receiver with RF frequency range of 516MHz to 832MHz or better, frequency response(microphone) of 25Hz to 18kHz or better, Microphone type: dynamic, Signal to Noise Ratio > 105dB(A), Total Harmonic distortion(THD)<0.9%, Polar Pattern :Cardioid, Sound pressure level(SPL): 154dB SPL(max) or better, Antenna Inputs:2xBNC sockets. The system shall include 01No. handheld transmitter, 01No.rack mounted receiver, 01No.microphone clip,01No. power supply unit, 2Nos.Antennas, 2Nos. stacking elements, 2Nos.AA size batteries with operating time of minimum 8hrs. or better complete as per the site requirement	Nos.	2				SHURE/Clear One / Sennheiser/ Beyerdynamic

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
56	SITC of Lapel mic system having rack mount type receiver with RF frequency range of 516-832MHz or better, Microphone Frequency Response of 25Hz to 18kHz or better, Signal to Noise Ratio > 105dB(A), Total Harmonic distortion(THD)<0.9%, Polar Pattern :Cardioid, Sound pressure level(SPL): 130dB SPL(max) or better, Antenna Inputs:2xBNC sockets. The system shall include 01No. bodypack transmitter, 01No.rack mounted receiver, 01No. clip-on microphone,01No. power supply unit, 2Nos.Antennas, 2Nos. stacking elements, 2Nos.AA size batteries with operating time of minimum 8hrs. or better complete as per the site requirement.	Nos.	1				SHURE/Clear One / Sennheiser/ Beyerdynamic
57	Supply, Installation, testing and Commissioning of Projector having 3LCD/1chip DLP, WUXGA display system with light source- Ultra high pressure Mercury lamp of minimum 280W, Light output- minimum 5000 ANSI lm, Aspect ratio: 16:10 or better , Zoom/Focus- Manual/Powered, Throw ratio: 1.5:1 to 2.2:1 or better, Manual Lens Shift, Lens Shift Vertical range : +/-5% or better, Lens shift Horizontal range: +/- 4% or better, Filter cleaning / replacement cycle: 2000 H or better in Standard mode, Screen size 40" to 300" (measured diagonally) or better, Contrast Ratio 2500:1 or better, Maximum Display resolution: 1920 x 1200 dots or better, Input terminals: HDMI x1Nos., HD base Tx1No.,RGB / Y PB PR input connector: Mini D-sub 15-pin (female)x 1No., S-video input connector: Mini DIN 4-pin x01No., Monitor output connector: Mini	Nos.	1				SONY/CHRISTIE/ PANASONIC/ BARCO

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
	D-sub 15-pin (female), RS-232 C connector: D-Sub 9-Pin (male), LAN ports: RJ- 45,100BASE-TX (Shared with HDBaseT), with other additional ports /features, wireless remote controller, UHP lamp , power cord and other accessories etc. complete as per the site requirement for the complete functioning.						
58	SITC of Motorized Ceiling mount kit for Projector	Nos.	1				
59	SITC of Motorized Screen of size 119" or better, FB: Fiber Glass Matt White Fabric, With I.R. Remote controller	Nos.	1				DRAPER/ GRANDVIEW/ DALITE
60	SITC of Interactive LCD Monitor having ElectromagneticTechnology,Display Resolution 1920 x 1080,Contrast Ratio 1000:1,Brightness 300 cd/m2,Tablet Resolution 2000lpi,Reading Height 5mm,Pressure Levels 2048,Tablet report rate200 reports / second,Tablet Accuracy +/- 0.5mm, Interface 15 pin D-sub, USB, Electromagnetic Pen with USB Charger. Built-in rechargeable battery with One time recharge life 1000 Hrs., Operating System: Windows 8/7 , VISTA , XP , MAC and LINUX or better complete as per the site requirement	Nos.	1				ATDSC/ALFA/ UNIVESO

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
61	SITC of EZcast Wireless dongle For Iphone, Ipad Windows PC Android, Tablets to TV selector box, Can directly play and cast local video, music, MS Office documents, Cast Content: Video, photo, game, files, Extended cable with WiFi dongle to avoid big TV screen blocking wireless signal, H.264 1080P full HD video decode, resolution 1080p Full HD, can be switched to 720p if your TV does not support or better complete as per the site requirement	Nos.	1				Huawei/SONY
62	Supply, Installation, Testing & Commissioning of 4x4 HDMI to HDBT Matrix switcher having minimum Inputs of 4Nos. x HDMI, 5Nos. infrared on 3.5mm mini jacks or better, Outputs of 2Nos. x HDMI or better, 4Nos. x HDBaseT (RJ45) or better, 5 Nos. infrared on 3.5mm mini jack or better, Max. data rate: 10.2Gbps or better, supported resolution: upto 4K or better, HDMI Range: 15mtr(49ft)@8bit resolution or better, 10mtr(33ft)@12bit resolution or better, HDBT range: 70mtr 4K@30Hz or better, 1080p@60Hz or better, Resolution support upto 4K or better with all built-in features complete as per the site requirement.	Nos.	1				KRAMER/ CRESTRON/ EXTRON/ ATLONA
63	SITC of HDBT receiver with range upto 70m(230ft) at 2K & 40m(130ft) at 4K UHD resolutions or better, Max. data rate: upto 10.2Gbps or better, HDMI and HDCP compliant, supports point to point or point to multi-point distribution with Input output ports (HDMI & RJ-45 connectors) & built-in features complete as per the site requirement.	Nos.	2				KRAMER/ CRESTRON /EXTRON /ATLONA

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
64	Supply, Installation, testing & Commissioning of video station with recording, streaming and webcasting simultaneously, built-in 6 Inputs (2 x HDMI / VGA; 4 X IP LAN), HDMI / VGA Out, Resolution-1080p, can record upto any four inputs simultaneously in a single frame, Video Input Channels: HDMI/VGA-2channels; Full HD Network camera: 4channels, Different recording and projection preview, Built-in 1 TB Hard disk, Playback feature, Lecture Editing feature etc. complete as per the site requirement.	Nos.	1				LUMENS/SONY/ /PANASONIC
65	Supply, Installation, testing & commissioning of full HD PTZ Camera with Output resolution: Full HD 1080p, Frame rate: 60 Fps, 20X Optical Zoom or better, 12X Digital Zoom or better, 128 Presets, DVI-I out, Ethernet out, C-Video Out, Audio In, Camera Control Interface: RS-232/422 /Ethernet, Panning Angle: -170° to +170° or better, Tilting angle: -30° to +90° or better, Focal length: f= 5 to 50mm or better, Horizontal viewing angle: 56.5deg. or better, Aperture: F1.8 to 3.0 or better, Auto/Manual Gain control feature, Image Flip feature, Exposure control feature, Minimum Object distance: 100(wide) to 1000(tele)mm or better, white balance feature complete as per the site requirement.	Nos.	2				LUMENS/SONY/ /PANASONIC
66	SITC of Joystick Camera Controller: Joystick for PAN/Tilt/Zoom and Focusing of cameras complete as per the site requirement	Nos.	1				LUMENS/SONY/ /PANASONIC

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
67	SITC of HDD with 4TB capacity, Store data faster with SATA 6Gb/s interface that optimizes performance, with Seagate AcuTrac™ servo technology, Seagate DiscWizard, 5900rpm, 3.5 inch internal hard drive 64MB buffer size or better complete as per the site requirement.	Nos.	1				WD/Toshiba
	ACCESSORIES						
68	SITC of cable cubby to be installed in table with 4inputs 15pin HD, 3.5mm RJ-45, HDMI, Power input-220V AC power sockets, cover type-Pneumatic pop-up with built-in features complete as per the site requirement	set	3				KRAMER/ GIGATRON/ LEGRAND
69	SITC of UL listed connectors for interconnection of equipment.	Lot	1				Neutrik
70	SITC of Speaker Cable : 2 core 2sq mm PVC Insulated CU Conduction Loudspeaker Cable	Nos.	200				Krystals/klotz
71	SITC of Signal Cable : 2+1 with shielded PVC Insulated CU Conduction Signal Cable	Nos.	300				Krystals/klotz
72	SITC of 600x800 12u Rack wall mount, Front Glass door, include fan and mounting accessories,	Nos.	1				Digital/Gigatron/ Rittal
73	SITC of HDMI Cable 1.5mtr Solid 10% Gold Plated LGC Conductors, Low Jitter, Low Distortion Audio, Signal Conductors Controlled for Digital Audio Direction	Nos.	3				DAC/ Aero/ koing
74	SITC of HDMI Cable 5mtr Solid 10% Gold Plated LGC Conductors, Low Jitter, Low Distortion Audio, Signal Conductors Controlled for Digital Audio Direction	Nos.	3				DAC/ Aero/ koing

S.No	Item Description	Unit	Qty.	Rate in figures (in INR)	Rate in words (in INR)	Amount in figures (in INR)	Approved Make
75	SITC of Cat 6 Cable 4 twisted pair cables 100 ohms, LSZH sleeve: zero halogen, U/UTP, 300mtr	Roll	1				Legrand/ D link/ Schneider Electric
76	Total Amount	in figures					
		in words					

NOTE:

- (i) The bidder shall quote the rates in the above format. The rates quoted shall be inclusive of all taxes and duties etc. as applicable to this contract.
- (ii) For Auditorium, the STI for the system to be maintained shall be greater than or equal to 0.55.

(Signature and Stamp of bidder)