

VOLUME II

PRICE BID / BILL OF QUANTITIES

FOR

**Supply, Installation, Testing and Commissioning of
AV equipment in NISM Campus**

for

NATIONAL INSTITUTE OF SECURITIES MARKETS

at

**NISM campus at plot no. IS-1 and IS-2, Patalganga Industrial Area,
village Wasambe, Sub-District Khalapur, District Raigad**

Supply, Installation, Testing and Commissioning of AV equipment in NISM Campus at ground floor of Academic block "A" in plot no. IS-1 and IS-2, Patalganga Industrial Area, village Wasambe, Sub-District Khalapur, District Raigad

Price bid / Bill of quantities

Note:	<p>1) The tenderer will quote his rates in words as well as in figures.</p> <p>2) Price bid / Bill of Quantities (duly filled in) is to be submitted in a separate sealed envelope to be marked as "FOURTH ENVELOPE"</p>				
Sr. No.	Description	Qty.	Unit	Rate	Amount
	Video System				
1	Supply of Projection Screen of minimum size 106" (diagonal) , 16:10 Aspect ratio Matte white screen with fibreglass-backed material suitable for wall and ceiling installation with minimum 160 degree wide viewing angle and uniform diffusion with 1.1 Gain, Black masking borders on all 4 sides, low voltage control Interface (5V to 12 V trigger control) with 3-way wall switch for Up/Down/Stop operations, RF Remote, RJ45 port for 3rd party room automation system integration as required. Make and model:- Elite- Electric106X or equivalent in Vutec/Dalite.	2	Nos.		
	Rate in words:				

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Sr. No.	Description	Qty.	Unit	Rate	Amount
2	Installation, Testing and Commissioning of Projection Screen of minimum size 106" (diagonal) , 16:10 Aspect ratio Matte white screen with fibreglass-backed material suitable for wall and ceiling installation with minimum 160 degree wide viewing angle and uniform diffusion with 1.1 Gain, Black masking borders on all 4 sides, low voltage control Interface (5V to 12 V trigger control) with 3-way wall switch for Up/Down/Stop operations, RF Remote, RJ45 port for 3rd party room automation system integration as required. Make and model:- Elite- Electric106X or equivalent in Vutec/Dalite.	2	Nos.		
	Rate in words:				
3	Supply of Ultra Short Throw WXGA Projector with 3 LCD/ DLP technology, Resolution 1280 x 800, Throw ratio from 0.27:1 to 0.35:1, manual vertical and horizontal lense shift should be possible, The Color Light output should be minimum 3100 lumens, Lamp life should be minimum 3000 hours at normal mode or higher. Should have built in monaural speaker with the minimum power of 10 watts ,should support 10BASE-T/100BASE-TX LAN. The projector should offer automatic energy saving mode. The projector should offer the following connections RGB X2: D-sub 15-pin (female), Audio input connector X2: Stereo mini jack, HDMI input connector: HDMI 19-pin, HDCP support. Should have minimum following output interface RS-232C connector: D-sub 9-pin (male), RJ-45, 10BASE-T/100BASE-TX, USB etc as required. Make and model:- Sony-VPL -SW630M or Epson - EB-585W or Panasonic - PT CW 330	2	Nos.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
4	Installation, Testing and Commissioning of Ultra Short Throw WXGA Projector with 3 LCD/ DLP technology, Resolution 1280 x 800, Throw ratio from 0.27:1 to 0.35:1, manual vertical and horizontal lense shift should be possible, The Color Light output should be minimum 3100 lumens, Lamp life should be minimum 3000 hours at normal mode or higher. Should have built in monaural speaker with the minimum power of 10 watts ,should support 10BASE-T/100BASE-TX LAN. The projector should offer automatic energy saving mode. The projector should offer the following connections RGB X2: D-sub 15-pin (female), Audio input connector X2: Stereo mini jack, HDMI input connector: HDMI 19-pin, HDCP support. Should have minimum following output interface RS-232C connector: D-sub 9-pin (male), RJ-45, 10BASE-T/100BASE-TX, USB etc as required. Make and model:- Sony-VPL -SW630M or Epson - EB-585W or Panasonic - PT CW 330	2	Nos.		
	Rate in words:				
5	Supply of Document Camera with Full HD 1080p output resolution at 30 fps., minimum 8x optical zoom or Higher , compatible for signal formats WXGA/XGA /1080p or higher, A4 size shooting area or higher, Image rotation - 0° / 180°/ mirror, camera rotation in the range 0° To 180°, Built in microphone etc as required. Make and model :- Lumens- DC-192 or equivalent in Elmo/Wolfvision	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
6	Installation, Testing and Commissioning of Document Camera with Full HD 1080p output resolution at 30 fps., minimum 8x optical zoom or Higher , compatible for signal formats WXGA/XGA /1080p or higher, A4 size shooting area or higher, Image rotation - 0° / 180°/ mirror, camera rotation in the range 0° To 180°, Built in microphone etc as required. Make and model :- Lumens- DC-192 or equivalent in Elmo/Wolfvision	1	No.		
	Rate in words:				
	Audio System				
7	Supply of 60 watts rms power Ceiling Speaker , 6.5" driver, Frequency Response - 60 To 20 KHz, Vertical Sound Coverage dispersion angle at 1 kHz should be atleast 92 degrees or higher. System Sensitivity (1W @1m) should be minimum 86 dB or higher. It should have 70/100 Volt Built in transformer tapings as required. Make and model :- Apart Audio-CM20T or Electrovoice-EVID C6.2 or Tannoy-CM 601 DC BM	12	Nos.		
	Rate in words:				
8	Installation, Testing and Commissioning of 60 watts rms power Ceiling Speaker , 6.5" driver, Frequency Response - 60 To 20 KHz, Vertical Sound Coverage dispersion angle at 1 kHz should be atleast 92 degrees or higher. System Sensitivity (1W @1m) should be minimum 86 dB or higher. It should have 70/100 Volt Built in transformer tapings as required. Make and model :- Apart Audio- CM20T or Electrovoice-EVID C6.2 or Tannoy-CM 601 DC BM	12	Nos.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
9	Supply of Wireless Hand held Microphone with receiver with atleast 8 compatible operating frequency banks ,Operate in UHF Operating Frequency, Pick-up Pattern- Dynamic /Cardioid , minimum 8 to 30 mWatts RF output, Operating range from 60 meter to 100 meter etc as required. Make and model:- Sennheiser-EW 135 G3 or Equivalent in Shure/ Electrovoice/ Beyerdyanamic	1	No.		
	Rate in words:				
10	Installation, Testing and Commissioning of Wireless Hand held Microphone with receiver with atleast 8 compatible operating frequency banks ,Operate in UHF Operating Frequency, Pick-up Pattern- Dynamic /Cardioid , minimum 8 to 30 mWatts RF output, Operating range from 60 meter to 100 meter etc as required. Make and model:- Sennheiser-EW 135 G3 or Equivalent in Shure/ Electrovoice/ Beyerdyanamic	1	No.		
	Rate in words:				
11	Supply of Wireless Headworn Microphone with transmitter and receiver with atleast 8 compatible operating frequency banks ,Operate in UHF Operating Frequency, Polar Pattern- cardioid/Super cardioid , minimum frequency response from 60 Hz to 18 KHz, Operating range from 60 meter to 100 meter etc as required. Make and model:- Sennheiser-EW 152 G3 or Equivalent in Shure /Electrovoice/ Beyerdyanamic	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
12	Installation, Testing and Commissioning of Wireless Headworn Microphone with transmitter and receiver with atleast 8 compatible operating frequency banks ,Operate in UHF Operating Frequency, Polar Pattern- cardioid/Super cardioid , minimum frequency response from 60 Hz to 18 KHz, Operating range from 60 meter to 100 meter etc as required. Make and model:- Sennheiser-EW 152 G3 or Equivalent in Shure /Electrovoice/ Beyerdynamic	1	No.		
	Rate in words:				
13	Supply of Gooseneck condenser microphone suitable for operation on 12V to 48V DC phantom power source with length 443 mm to 458 mm, frequency response from 50 Hz to 15 KHz , Impedance range - 50 to 200 Ohms , XLR3M-type connector at the base etc as required. Make and model:- Sennheiser-MZF-31+ MEG-14/40B or Equivalent in Shure/ Electrovoice/ Beyerdynamic	1	No.		
	Rate in words:				
14	Installation, Testing and Commissioning of Gooseneck condenser microphone suitable for operation on 12V to 48V DC phantom power source with length 443 mm to 458 mm, frequency response from 50 Hz to 15 KHz , Impedance range - 50 to 200 Ohms , XLR3M-type connector at the base etc as required. Make and model:- Sennheiser-MZF-31+ MEG-14/40B or Equivalent in Shure/ Electrovoice/ Beyerdynamic	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
15	Supply of Power Amplifier with minimum 1 Line input & 1 output, Per channel output should be in the range of 240 watt to 700 watt @ 4 ohm. Frequency response should be in the range of 5Hz to 22Khz or better, The rack mount amplifier should have 70/100 volt output connectivity, balanced input connectivity with XLR or 3 pin detachable screw terminals as required. Make and model:- Apart Audio-PA240P or equivalent in Labgruppen or PowerSoft	1	No.		
	Rate in words:				
16	Installation, Testing and Commissioning of Power Amplifier with minimum 1 Line input & 1 output, Per channel output should be in the range of 240 watt to 700 watt @ 4 ohm. Frequency response should be in the range of 5Hz to 22Khz or better, The rack mount amplifier should have 70/100 volt output connectivity, balanced input connectivity with XLR or 3 pin detachable screw terminals as required. Make and model:- Apart Audio-PA240P or equivalent in Labgruppen or PowerSoft	1	No.		
	Rate in words:				
17	Supply of Pre-Amplifier with minimum 8 Mic/Line Inputs, 48 Volt phantom power selectable for each input, All input should have 3 Pin XLR / 1/4"/RCA Connectivity, Frequency response- compatible with above microphones frequencies, LED indication of channel activation and clipping, Auto gain adjustment, it should be rack mountable, power cord etc. as required. Make and model:- Shure- SCM810 or Equivalent in Electrovoice/Apart Audio.	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
18	Installation, Testing and Commissioning of Pre-Amplifier with minimum 8 Mic/Line Inputs, 48 Volt phantom power selectable for each input, All input should have 3 Pin XLR / 1/4"/RCA Connectivity, Frequency response- compatible with above microphones frequencies, LED indication of channel activation and clipping, Auto gain adjustment, it should be rack mountable, power cord etc. as required. Make and model:- Shure-SCM810 or Equivalent in Electrovoice/Apart Audio.	1	No.		
	Rate in words:				
	Scaling, Switching & Routing System				
19	Supply of HDMI Audio De-embedder with input HDMI connector, HDMI audio de-embedding with analog stereo audio & multi channel audio pass through should be possible, It should be HDCP & EDID compliant, accept the minimum resolution 640x480 To 1920x1200 or better, LED indication status indication as required. Make and model:- Extron-HAE-100 or Crestron-HD-DA-2	1	No.		
	Rate in words:				
20	Installation, Testing and Commissioning of HDMI Audio De-embedder with input HDMI connector, HDMI audio de-embedding with analog stereo audio & multi channel audio pass through should be possible, It should be HDCP & EDID compliant, accept the minimum resolution 640x480 To 1920x1200 or better, LED indication status indication as required. Make and model:- Extron-HAE-100 or Crestron-HD-DA-2	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
21	Supply of Distribution Amplifier 1:4 with 1 HDMI Input & 4 HDMI output, It Should support signal up to 1920x1200, HDCP & EDID compliant, LED status indication etc. as required. Make and model:- Extron-HDMI DA4 or Crestron -HD-DA4-4K-E	1	No.		
	Rate in words:				
22	Installation, Testing and Commissioning of Distribution Amplifier 1:4 with 1 HDMI Input & 4 HDMI output, It Should support signal up to 1920x1200, HDCP & EDID compliant, LED status indication etc. as required. Make and model:- Extron-HDMI DA4 or Crestron -HD-DA4-4K-E	1	No.		
	Rate in words:				
Lighting & Automation Control System					
23	Supply of Control Processor with minimum 8 Buttons, 2 Bidirectional/1 Way RS 232 control ports,1 10/100BaseT Ethernet port, Momentary/Latching relay, Volume control knob, All provided buttons should be fully configurable, The system should be fully programmable as per the application need, Customization of button labels should be possible, Including Power Supply for Control processor & installation accessories etc. as required. Make and model:- Crestron-MPC-M10 or AMX- MCP-108 or Extron- MLC-226 IP	1	No.		
	Rate in words:				

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Sr. No.	Description	Qty.	Unit	Rate	Amount
24	Installation, Testing and Commissioning of Control Processor with minimum 8 Buttons, 2 Bidirectional/1 Way RS 232 control ports,1 10/100BaseT Ethernet port, Momentary/Latching relay, Volume control knob, All provided buttons should be fully configurable, The system should be fully programmable as per the application need, Customization of button labels should be possible, Including Power Supply for Control processor & installation accessories etc. as required. Make and model:- Crestron-MPC-M10 or AMX- MCP-108 or Extron- MLC-226 IP	1	No.		
	Rate in words:				
	Architectural Connectivity				
25	Supply of furniture mount Table Surface Enclosure with 2 Universal AC Power socket,1 VGA, 1 Audio,1 HDMI & 1 LAN, etc. as required. Make and model:- Extron-Cable Cubby 500 or AMX- HPX-900	1	No.		
	Rate in words:				
26	Installation, Testing and Commissioning of furniture mount Table Surface Enclosure with 2 Universal AC Power socket,1 VGA, 1 Audio,1 HDMI & 1 LAN, etc. as required. Make and model:- Extron-Cable Cubby 500 or AMX- HPX-900	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
27	Supply of Floor Box for AV system with Flush mounted connectivity inside Panel. It Should be capable to use in multipurpose areas. The floor box should offer a lid for opening to enable users to make connections. Variable Sizes should be available with various finishes as per the Interior Finishes. Various types of Insert connectors & sockets should be provided with the floor box based on the location and the usage. Power sockets should be of universal type. Make and model:- Clipsal- FFB4PTD or equivalent in Legrand	1	No.		
	Rate in words:				
28	Installation, Testing and Commissioning of Floor Box for AV system with Flush mounted connectivity inside Panel. It Should be capable to use in multipurpose areas. The floor box should offer a lid for opening to enable users to make connections. Variable Sizes should be available with various finishes as per the Interior Finishes. Various types of Insert connectors & sockets should be provided with the floor box based on the location and the usage. Power sockets should be of universal type. Make and model:- Clipsal- FFB4PTD or equivalent in Legrand	1	No.		
	Rate in words:				
	Patch Cables				
29	Supply of 6 feet (Nominal) RGBHV Audio Patch Cord i/c connection as required. Make and model:- Extron - MVGA-A-M-M/6 or equivalent in Crestron/Belden	1	No.		
	Rate in words:				

Sr. No.	Description	Qty.	Unit	Rate	Amount
30	Installation, Testing and Commissioning of 6 feet (Nominal) RGBHV Audio Patch Cord i/c connection as required. <i>Make and model:- Extron - MVGA-A-M-M/6 or equivalent in Crestron/Belden</i>	1	No.		
	Rate in words:				
31	Supply of 6 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. <i>Make and model:- Extron - HDMI Ultra/6 or equivalent in Crestron / Belden</i>	4	Nos.		
	Rate in words:				
32	Installation, Testing and Commissioning of 6 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. <i>Make and model:- Extron - HDMI Ultra/6 or equivalent in Crestron / Belden</i>	4	Nos.		
	Rate in words:				

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Sr. No.	Description	Qty.	Unit	Rate	Amount
33	Supply of 35 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. Make and model:- Extron - HDMI Pro/35 or equivalent in Crestron / Belden	2	Nos.		
	Rate in words:				
34	Installation, Testing and Commissioning of 35 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. Make and model:- Extron - HDMI Pro/35 or equivalent in Crestron / Belden	2	Nos.		
	Rate in words:				
35	Supply of 75 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. Make and model:- Extron - HDMI Pro/75 or equivalent in Crestron / Belden	1	No.		
	Rate in words:				

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Sr. No.	Description	Qty.	Unit	Rate	Amount
36	Installation, Testing and Commissioning of 75 feet (Nominal) HDMI Patch cord , compatible for minimum 1920 x 1080 resolution, including connections as required. <i>Make and model:- Extron - HDMI Pro/75 or equivalent in Crestron / Belden</i>	1	No.		
	Rate in words:				
37	Total amount (1 to 36)				
38	Additonal amount, if any				
39	Rebate amount, if any				
40	Total quoted amount in figure (37+38-39)				
41	Total quoted amount in words:				

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