

## ELECTRICAL FOR SNDTWO INCUBATION CENTRE SANTACRUZ WEST

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
A	GENERAL WIRING				
I	Supply and fixing of <b>TPN Switch Fuse Unit (SFU)</b> , 500 Volts Three Phase & Neutral(TPN) in sheet MS enclosure with 3nos.HRC fuses & a neutral link complete with mounting & <b>suitable end boxes for proper terminations as per IS Standards</b>				
a	160 Amp. TPN SFU	Nos.			
b	125 Amp. TPN SFU	Nos.			
c	100 Amp. TPN SFU	Nos.			
d	63 Amp. TPN SFU	Nos.			
e	32 Amp. TPN SFU	Nos.			
1A	Supply and fixing of 3Pole/ 4Pole MCCB ,(50/60Hz) low voltage electrical installation from 220V to 690V. MCCB shall be equipped with a trip unit in sheet MS enclosure suitable extended connects, complete with mounting, & suitable end boxes for proper terminations as per IS Standards, scope including required hard ware for endconnectors & mouting system completly				
a	Moulded case circuit breaker (MCCB) - L/T100A to 160A - (50 - 65 kA DL Series) - Four pole - FP	Nos.	1.00		
b	Moulded case circuit breaker (MCCB) - L/T100A to 160A - (50 - 65 kA DL Series) - Triple pole - TP	Nos.			
c	Molded case circuit breaker (MCCB) - L/T12A to 100A MCCB - (6 kA - 10 kA DTH Series) - Four pole - FP	Nos.			
d	Molded case circuit breaker (MCCB) - L/T12A to 100A MCCB - (6 kA - 10 kA DTH Series) - Triple pole - TP	Nos.			
2	Supply and laying of <b>Copper multi stranded wires</b> of 1100V grade PVC insulated including PVC conduit pipe from, meter to Switch fuse unit in meter cabin completed with adequate capacity of dowell's make ferrules type copper crimping lugs as per IS standards				
a	4runs. x 50 sq.mm	Mtr.			
b	4runs. x 35 sq.mm	Mtr.			
c	4runs. x 25 sq.mm	Mtr.			
d	4runs. x 16 sq.mm	Mtr.	20.00		
e	4 runs. x 10 sq.mm	Mtr.			
f	4 runs. x 6 sq.mm	Mtr.			
3	supplying and laying of <b>ALUMINIUM PVC insulated armoured cables</b> to be laid partly concealed after exvating the floor/ earth and partly on wall with its accessories such as M. S. Spacer,saddles,nut bolts, screws etc from meter room to L. T. Control Panel as per IS Standards				
a	3 1/2core x 95 sq.mm Aluminium Conductor cables	Mtr.			
b	3 1/2core x 70 sq.mm Aluminium Conductor cables	Mtr.			
c	3 1/2core x 50 sq.mm Aluminium Conductor cables	Mtr.	50.00		
d	3 1/2core x 35 sq.mm Aluminium Conductor cables	Mtr.			
e	3 1/2core x 25 sq.mm Aluminium Conductor cables	Mtr.			
f	4core x16 sq.mm Aluminium Conductor cables	Mtr.			
4	<b>Termination</b> of cables- PVC insulated armoured Aluminium /Copper conductor cables by using Flange type upto 50sq.mm size and Siemens type brass cable gland with appropriate size of Dowell's make copper crimping type lugs.(set means RYB-N)				
a	3 1/2 x 95 sq.mm Aluminium Conductor cables	Set			
b	3 1/2 x 70 sq.mm Aluminium Conductor cables	Set			
c	3 1/2 x 50 sq.mm Aluminium Conductor cables	Set	5.00		
d	3 1/2 x 35 sq.mm Aluminium Conductor cables	Set			
e	3 1/2 x 25 sq.mm Aluminium Conductor cables	Set			
f	4core x16 sq.mm Aluminium Conductor cables	Set			

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
5	supply and fixing of Manual <b>CHANGE OVER SWITCH</b> 500 Volts, 4 pole enclosed in sheet steel enclosure set on M.S. angle frame with nut, bolts, screws etc.complete with mounting arrangement and interconnection for following types & <b>suitable end connector boxes for proper terminations as per IS Standards</b>				
	a	160 AMP	Nos.		
	b	125 Amp.	Nos.	1.00	
	c	100 Amp.	Nos.		
	d	63 Amp.	Nos.		
	e	32 Amp.	Nos.		
5a	supply and fixing of <b>BYPASS CHANGE OVER SWITCH</b> 500 Volts, 4 pole enclosed in sheet steel enclosure set on M.S. angle frame with nut, bolts, screws etc.complete with mounting arrangement and interconnection for following types & <b>suitable end connector boxes for proper terminations as per IS Standards</b>				
	a	160 AMP	Nos.		
	b	125 Amp.	Nos.		
	c	100 Amp.	Nos.		
	d	63 Amp.	Nos.		
6	<b>Gel /chemical Earthing:</b>				
	a	Gel / chemical Earthing 3 mts length Earthing Electrode - <b>3mtr length</b> , 80mm dia 2 bags of Ennov / approved make BackFill Compound as per attached insallation manuval, and IS standards ( <b>ENOVA/ Earthing center / pre approved make</b> ) scope including all required tools and tackles and provide installation video / photos with earthing resistance parameters	Nos.		
	b	Gel / chemical Earthing 2 mts length Earthing Electrode - <b>2mtr length</b> , 80mm dia 1 bag of Ennov/ Approved make BackFill Compound as per installation manuval & IS standards ( <b>ENOVA/ Earthing center / pre approved make</b> ) scope including all required tools and tackles and provide installation video / photos with earthing resistance parameters	Nos.	2.00	
7	supplying & laying of <b>Earthing cable</b> from Earthing bus bars to equipments scope including required lugs, nut and bolts ( DG, UPS, Panel, Internal DBS etc (using green color)				
	a	1C x 16sqmm cu flexible wire in pvc pipe	Mtrs.		
	b	1Cx10sqmm cu flexible wire in pvc pipe	Mtrs.	100.00	
	c	1Cx6sqmm cu flexible wire in pvc pipe	Mtrs.		
	c	1Cx 4sqmm cu flexible wire in pvc pipe	Mtrs.		
	d	S & L of 25 X 3mm <b>Cu.flat Strip</b> ( for DG netural ) scope including suitable insulation sleeve tape, jointing/ welding labour materials completely as per IS standars	Mtrs.		
	e	S & L of 25 X 3 mm <b>GI.flat Strip</b> ( for DG body earthing ) scope including suitable insulation tape, jointing/ welding labour materials completely as per IS standars	Mtrs.		
	f	S & L of 12 SWG GI Earth wire scope including required clamping on the walls end terminations with suitable lugs scope including all materials labour completely	Mtrs.	100.00	
	g	Supply and fixing of <b>copper earthing bus bars 25x6 mm th 300 long</b> with suitable 6mm/ 8mm/ 10mm dia 8 to 10 nos holes as per site requirement mounting pvc / porcelien insulators fixing on wall near to main DB as is standards and EIC Instructions	Nos.	2.00	
	h	Supply and fixing of <b>G.I earthing bus bars 25x6 mm th 300 long</b> with suitable 6mm/ 8mm/ 10mm 8 to 10 nos holes as per site requirement mounting pvc / porcelien insulators fixing on wall near to main DB as is standards and EIC Instructions	Nos.		

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
8	<b>Supplying &amp; fixing of L.T. CONTROL PANEL</b>				
A	Supplying, fixing, testing and commissioning of indoor type L.T control panel having fabricated from 2mm thick CRCA cold rolled sheet steel & having 3mm. Frame from CRCA sheet, complete with seven tank process painted with 2 coats of red oxide one coat of smoke grey / approved color paint as per IS Standards <b>(3000 - 4000sq.ft offices)</b>	set.			
a	4 nos. of 160 Amps. Electrolytic copper bus bar.				
b	0 to 500 volts square type volt meter with rotary selector switch.....2set.				
c	0 to 200 amps square type Amps meter having 3nos of 200 amps /5amps C.T operating coils and rotary selector switch.....2sets.				
d	6 nos of neon indicating bulbs indicate 3 diff. phases with potential fuses.....2sets.				
	Panel to be mounted with 3"x3"x1 1/2" M.S 'C' channel with hold fast, Anchor fastner nuts & bolts, washer etc.				
	<b><u>INCOMING</u></b>				
a	200 Amps. MCCB.....1 NOS for incoming supply				
	<b><u>OUTGOING</u></b>				
a	32/ 63 Amps. TPN MCB with a neutral link.....4 Nos.				
	1 no for Power & Lighting DB				
	1 no for UPS				
	1 no for AC DB				
	1 no spare				
b	63 / 100 Amps. TPN MCB and a neutral link for APFC PANEL .....4 / 6 Nos.				
B	<b><u>Supply and fixing of L.T PANEL (for 2000 SFT &amp; 3000 SFT offices)</u></b>	set.	1.00		
	<b><u>INCOMING</u></b>				
a	125 Amps. MCCB.....1 NOS for incoming supply				
	<b><u>OUTGOING</u></b>				
a	32/ 63 Amps. TPN MCB with a neutral link.....4 Nos.				
	1 no for Power & Lighting DB				
	1 no for UPS				
	1 no for AC DB				
	1 no spare				
b	32/ 63 Amps. TPN MCB and a neutral link for APFC PANEL .....2 / 3 Nos.				
C	<b><u>Supply and fixing of L.T PANEL (for 1500 SFT &amp; 2000 SFT offices)</u></b>	set.			
	<b><u>INCOMING</u></b>				
a	100 Amps. MCCB.....1 NOS for incoming supply				
	<b><u>OUTGOING</u></b>				
a	32/ 63 Amps. TPN MCB with a neutral link.....4 Nos.				
	1 no for Power & Lighting DB				
	1 no for UPS				
	1 no for AC DB				
	1 no spare				
b	32/ 63 Amps. TPN MCB and a neutral link for APFC PANEL .....2 / 3 Nos.				
9	Supply, fixing, testing and commissioning of <b>Automatic Power factor Improvement Panel (APFC)</b> with below capacitors to be placed in main power panel on available compartment ( if provision not available in main panel extra cost will pay as per site specific condition ),cosists of contactors, contorll wiring, required fues as per EIC Instructions and as per IS standards				
a	45KVAR	Set			
b	25KVAR	Set			
c	15KVAR	Set	1.00		
d	10KVAR	Set			
e	5KVAR	Set			

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
9a	Supply, fixing, testing and commissioning of <b>Automatic Power factor Improvement Panel (APFC)</b> with below capacitors to be in new panel ,cosists of, APFC meter contactors, controll wiring, required fues as per EIC Instructions and as per IS standards				
	a	45KVAR	Set		
	b	25KVAR	Set		
	c	15KVAR	Set		
	d	10KVAR	Set		
	e	5KVAR	Set		
10	supply & laying of rigid 2mm thick <b>PVC conduits</b> along with accessories in floor below the tiles / ceiling with required hanging syytem like H-type clamps for DATA & VOICE CABLES, as per is standards and EIC instructions				
	a	25 mm Dia. Pipes.	Mtrs.	350.00	
	b	32 mm Dia. Pipes	Mtrs.	50.00	
11	supply & fixing of <b>M.S. junction boxes</b> of 14 swg with rectangular cutouts on 4 sides with 16 G S.STEEL cover; recessed in floor for taking data cables, stabilized/non-stabilized supply cables.				
	a	12" x12" x 40mm deep	Nos.	15.00	
	b	16" x16" x 40mm dep	Nos.		
	c	8"x8" x 40mm deep	Nos.		
	d	6"x6"x 40mm deep	Nos.		
12	<b>Supply &amp; laying of power cable</b> from L.T. PANEL to LIGHTING & AC, D.B.copper PVC insulated un-armoured CABLES including testing & commissioning of following size to be laid partly concealed after exvating the floor/ earth and partly on wall as per IS standards				
	a	4 C x 25 Sq. mm Cu. Unarmoured. Cable	Mtrs.		
	b	4 C x 16 Sq. mm Cu. Unarmoured. Cable	Mtrs.	5.00	
	c	4 C x 10 Sq. mm Cu.Unarmoured Cable	Mtrs.	15.00	
	d	4 C x 6 Sq. mm Cu. Unarmoured Cable	Mtrs.		
13	<b>Termination of cables-</b> PVC insulated armoured Aluminium /Copper conductor cables by using Flange type upto 50sq.mm size and Siemens type brass cable gland with appropriate size of Dowell's make copper crimping type lugs.(set means RYBN)				
	a	4 C x 16 sq. mm Cu.Unarmoured Cable	set	2.00	
	b	4 C x 25 sq. mm Cu. Unarmoured Cable	set		
	c	4 C x 10 sq. mm Cu. Unarmoured Cable	set	9.00	
	d	4 C x 6 sq. mm Cu.Unarmoured Cable	set		
14	<b>Supply &amp; fixing of VERTICAL D.B.</b>				
	a	<u>4-WAY V-TPN D.B. 63 Amp. TPN MCCB- INCOMER 4 Nos. 32/ 40/ 63 Amp. MCB ( for UPS, LIGHTING, AC DB INPUT) ( 8+12) (Note ; using as distribution / main panel)</u>	Nos.		
	b	<u>6-WAY V-TPN D.B. 63 TPN MCCB- INCOMER 6 Nos. 32/ 40/ 63 Amp. MCB ( for UPS, LIGHTING, AC DB INPUT) ( 8+24) (Note ; using as distribution / main panel)</u>	Nos.		
	c	<u>8-WAY V-TPN D.B. 100 Amp. TPN MCCB- INCOMER 8 Nos. 32/ 40/ 63 Amp. MCB ( for UPS, LIGHTING, AC DB INPUT) 24 Nos 10/20/30/40 AMPS. S.P. MCB ( 8+24) (Note ; using as distribution / main panel)</u>	Nos.		
		<b>Supply &amp; fixing of Horizontal D.B</b>			
15	a	4 WAY TPN D.B. 40 Amp. TPN MCB- INCOMER 4 Nos. 32/ 40/ Amp. MCB ( UPS, LIGHTING, AC, Raw power points ) OR 12 Nos 10/20/30/40 AMPS. S.P. MCB ( 8 +12)	Nos.		
	b	6 WAY 63 TPN MCB- INCOMER 5 Nos. 32/ 40/ 63 Amp. MCB ( UPS, LIGHTING, AC DB INPUT) 12 Nos 10/20/30/40 AMPS. S.P. MCB ( 8 +18)	Nos.	3.00	
	c	8 WAY 63 TPN MCB- INCOMER 6 Nos. 32/ 40 Amp. MCCB ( for UPS, LIGHTING, AC DB INPUT) 24 Nos 10/20/30/40 AMPS. S.P. MCB ( 8 +24)	Nos.		

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
15.1	<b>Supply &amp; laying of Raw power wiring</b> Power circuit wiring in rigid 3/4" (20mm) PVC conduit pipe to be laid Partly in open execution above false ceiling & partly concealed in wall with <b>2 x 4 sq.mm and 1x 2.5 sq.mm.</b> PVC insulated copper conductor wire ISI make 1100 V grade to be used as earthing from distribution board to various power plugs,	Mtrs.	300.00		
16	supply & fixing of 20 / 32 Amps 3 pin and <b>earth ray roll plug and socket</b> with 1 No. 20/ 32 Amps. S.P. circuit breaker enclosed in M.S.Box for 1 TR. /1.5 Tr. A.C. unit	Nos.	15.00		
16a	supply & fixing of 40 Amps 3 pin and <b>earth ray roll plug and socket</b> with 1 No. 40 Amps. S.P. circuit breaker enclosed in M.S.Box for 2 TR. A.C. unit	Nos.			
17	<b>Supply &amp; laying of CABLES</b> PVC insulated armoured copper conductor cable with 1 Nos. of 12 SWG earthing with its accessories such as M.S. spacers, saddles, screws, etc. from L.T. control panel to respective 3 PHASE Acs, from earth pits to Earthings, Glow boards as per site specific condition and IS Standards				
a	4 C x 4 Sq. mm Cu. Ar. Cable	Mtrs.			
b	4 C x 6 Sq. mm Cu. Ar. Cable	Mtrs.			
c	4 C x 10 Sq. mm Cu. Ar. Cable	Mtrs.			
d	2 C x 2.5 Sq. mm Cu. Ar. Cable	Mtrs.			
e	2 C x 4 Sq. mm Cu. Ar. Cable	Mtrs.			
f	2 C x 6 Sq. mm Cu. Ar. Cable	Mtrs.	75.00		
g	2 C x 10Sq. mm Cu. Ar. Cable	Mtrs.			
18	<b>Termination</b> of above mentioned PVC insulated armoured copper conductor cable by using Siemens type brass cable gland and Dowell'smake crimping type lugs. (set means RYBN for 3 phase) Face & neutral for single phase				
a.	4 C x 4 Sq. mm Cu. Ar. Cable	set			
b.	4 C x 6 Sq. mm Cu. Ar. Cable	set			
c	4 C x 10 Sq. mm Cu. Ar. Cable	Set			
d	2 C x 2.5 Sq. mm Cu. Ar. Cable	set			
e	2 C x 4 Sq. mm Cu. Ar. Cable	set			
f	2 C x 6 Sq. mm Cu. Ar. Cable	set			
g	2 C x 10Sq. mm Cu. Ar. Cable	set			
19	Supply & fixing of <b>4pole MCB in M.S. concealed box</b> to be mounted near A.C. control panel. As per IS standards				
a.	40 Amps. ( 3Tr & 4 Tr 3 Phase ACs & 3 phase UPS )	Nos			
b.	63 / 80 Amps. ( 5.5 Tr &, 8.5 TR ACS & 3 Phase UPS)	Nos	1.00		
c	<b>32 Amps. 2 ploer DP MCBs</b> in M.S Conceiled box ( signle phase UPS ) scope including all materials and labour completely as per standards	Nos			
d	<b>40-Amps. 2 ploer DP MCBs</b> in M.S Conceiled box ( signle phase UPS ) scope including all materials and labour completely as per standards	Nos	1.00		
e	<b>63-Amps. 2 ploer DP MCBs</b> in M.S Conceiled box ( signle phase UPS ) scope including all materials and labour completely as per standards	Nos			
	<b>Lighting and Raw power circuit wiring</b>				
20	Supply & laying of <b>Raw power CIRCUIT wiring</b> with <b>2 x 2.5 sq.mm</b> PVC insulated copper conductor wire ISI make 660 V to 1100V grade, <b>1x1.5 sq.mm No. green wire</b> is to be used as earthing from respective Lighting & power D.B. to various switch boards in 3/4" (20mm) rigid PVC conduit pipes to be laid partly open execution above false ceiling and partly concealed in wall or partition as IS standard	Mtrs.	250.00		

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
21	supply & laying of <b>Lighting circuit wiring with 3 x 1.5 sq.mm.</b> 650V. To 1100V. grade PVC insulated copper conductor wire, third wire is to be used as earthing, from Lighting DB to primary Light point in 3/4" ( 20 mm ) rigid PVC 'conduit pipe adequate size of M.S. concealed board, holder/ceiling rose etc. as per IS standards	Mtrs.	125.00		
22	supply & laying of Lighting circuit wiring with 3 x 1.5 sq.mm. 650V. To 1100V. grade PVC insulated copper conductor wire, third wire is to be used as earthing, from Lighting DB to switch board in 3/4" ( 20 mm ) rigid PVC 'conduit pipe ( utlising only for meeting rooms, training room, close cabins , toilets electrical, server room and individual closed rooms as per IS standards				
a.	1-light- control by 1 no. 5A. x 1 way switch.	Nos.			
b	2- lights- control by 1 no. 5A. x 1 way switch.	Nos.			
c	3-lights- control by 1 no. 5A. x 1 way switch.	Nos.			
d	4 lights- control by 1 no. 5A. x 1 way switch.	Nos.			
e	5-lights- control by 1 no. 5A. x 1 way switch.	Nos.			
f	6-lights- control by 1 no. 5A. x 1 way switch.	Nos.			
g	Primary point ( directly from MCB to 1st light ( UP to 9 mts length) if length more than 9 mts consderied in lighting circuit wiring)	Nos.	40.00		
h	Secondary point ( 1st light point to other series light points in same circuit )	Nos.	60.00		
23	supply & fixing of M.S concealed box and <b>5Amps 1 way switch</b> and <b>5Amps x 3 pin socket</b> for exhaust / fan point inclusive of switch on switch board and socket. (lighting wiring calculated in lighting circuit wiring item no 21)	Nos.	6.00		
24	supply & fixing of 5Amp SOCKET ON SWITCH BOARD 5A x 3 pin plug switch combination with G.I. concealed box for lighting separate plugs (Note: wiring is included in Lighting circuit wiring includes in item No.21)	Nos.			
25	supply & fixing of 5/15 AMP. RAW POWER SOCKET on work station 15amps. X 5pin switch socket combine with box For Hub, Server, Printer, Fax.	Nos.	16.00		
26	Supply & fixing of sigle phase / 3 phase UPS D.B. enclosed in sheet steel enclosure duly painted.				
a.	<b>4 way</b> S.P.N DB consists ( 2-Nos 6amps of SP MCBs Controlled by 16 amps DP)	nos			
b	<b>6-way</b> S.P.N DB consists ( 4-nos 6amps SP MCBs and 20 amps DP)	nos			
c	<b>8 way</b> S.P.N DB consists ( 6-nos 6amps SP MCBs and controlled by 32 amps DP)	nos			
d	<b>12 way</b> S.P.N DB consists (10 nos-6amps SP MCBs and controlled by 43 amps DP )	nos	1.00		
e	4 ways TPN DB 1 No of 40 Amps copper busbar 1No. 40 Amps. 4 pole Isolator 12 Nos 6 to 10 AMPS. S.P. MCB	nos			
f	6 ways TPN DB 1 No of 63 Amps copper busbar 1No. 63 Amps. 4 pole Isolator 18 Nos 6 to 10 AMPS. S.P. MCB	nos			
g	supply & fixing of M.S concealed box along with USB Power socket 1000mAh as per IS standard specifications of Roma product code of 20460 / equivalent preapproved make and model fixing on the table (lighting wiring calculated in lighting circuit wiring item no 21)	Nos			
27	supply & laying of COMPUTER CIRCUIT wiring in laid rigid PVC conduit pipes with <b>3C x 2.5 sq.mm</b> PVC insulated copper WIRE ISI make 660 V to 1100V grade wire from UPS D.B. provided in UPS room to various computer receptacles.	Mtrs.	300.00		
28	Supply & fixing of UPS PLUG SOCKETS				

S No	Description of work -Electrical works	Unit	Boq Qty	Rates	Amount
	a. Receptacles comprising of 1No. 5amps. Switch with 2 Nos 5amps.3pin socket with mounting box for computer nodes near work stations	nos	40.00		
29	a. Fixing of Lan (Data) socket provided by computer network contractor & M.S. concealed box to be provided by Electrical contractor.	Nos.	10.00		
	<b>Supply &amp; fixing of Light fittings</b>				
30	supply & fixing of following light fittings complete with suitable connectors and suitable hanging system chain or approved hanging sytem as IS Standards / EIC insructions in celing / wall as per site specific condition				
	a. 1x 36W / 40 LED Panel / Dark / optic model lamp (2'x2') approved make ( poly cab/ osoram/ philips/ Bajaj/ Orient.)	Nos.	35.00		
	b. 1x15 W LED Celing / surface mounted down light fitting, 9" dia / 1'0"x1;0" square) approved make ( poly cab/ osoram/ philips/ Bajaj/ Orient	Nos.	44.00		
	c. 1x12 W LED Celing / surface mounted down light fitting, approved make ( poly cab/ osoram/ philips/ Bajaj/ Orient	Nos.	30.00		
	d. 1x9 W LED Celing / surface mounted down light fitting, approved make ( poly cab/ osoram/ philips/ Bajaj/ Orient.	Nos.			
31	<b>Supply &amp; fixing of FANS</b>				
	a. 9" Sweep exhaust fan with louvers with mounting frame & interconnection, G.E.C./ Neutech/ Havells/ Compact	Nos.	1.00		
	b. Wall mounted Fan, 38mm. Sweep wall mounting oscillating fan complete with other accessories, Crompton make.	Nos.	2.00		
	c. S/f of pedestal fan	Nos.			
	<b>FIRE ALARM SYSTEM WIRING : -</b>				
32	Supply & fixing of Fire Alarm Control Panel complete with a) Zone control system with built in hooter.b) Fire / open / short test alarm and indicator of zones.C) 16 guage CRCA casing box complete with mounting brackets and fixing accessories. Cost including 2 nos 7AH batteries / as per OEM Standered				
	a. 2Zone FIRE ALARM PANEL	Nos	1.00		
	b. 4 Zone FIRE ALARM PANEL	Nos			
33	supply & fixing of SMOKE / HEAT DETECTOR				
	Manual Ionisation detector complete with detector elements, local indicator with internal wiring terminated in connector, fixing accessories for detector such as PVC junction box etc.				
	a) Dual chamber ionisation type Smoke Detector.	Nos.	25.00		
	b) Response Indicator.	Nos.	8.00		
34	P / F HOOTERS complete with electronic sounder with SPL - 90 DB and internal connection upto terminal connectors.	Nos.	1.00		
35	S / I of 2 x 1.5 sq,mm. PVC insulated armoured copper conductor cable with it's accessories such as M.S. Spacer, saddles etc from Main Fire Alarm Control Panel to Zone wise smoke detectors and hooter.	Mtrs.	300.00		
36	S & I of Manual Call Point	Nos.	2.00		
37	S / I CABLES FOR PROJECTOR IN TRAINING ROOM				
	a. Supply and laying of 2-Core 21gauge AWG AV CABLE, as per IS standards scope inclcuding all materials labour completely	Mtr.			
	b. supply and laying of RGBHV 5-Core 26 gaugeAwg VGA CABLE, as per IS standards , scope including all materials labour completely	Mtr.			





**DATA & VOICE FOR SNTWU INCUBATION CENTRE SANTACRUZ WEST**

S No	Description of Work -Data & Voice works	Boq Qty	Unit	Rates	Amount
	Data & Voice cabling				
A	Supply and fixing of data cabling scope including all materials				
1	Supply of AMP/ Delink/ Equivalent pre approved ISI make Cat - 5 UTP cable. As per IS standards		Mtrs.		
2	Supply of AMP /Delink/Equivalent pre approved ISI make Cat 5 & 6 Information outlet .	110.00	Nos.		
3	Supply of AMP/ Delink/ Equivalent pre approved ISI make Quad Face Plate		Nos.		
4	Supply of AMP/ Delink Equivalent pre approved ISI make Dual Face Plate	55.00	Nos.		
5	Supply of AMP/ Delink/ Equivalent pre approved ISI make Cat 5 Jack panel 24 Port	6.00	Nos.		
6	Supply of AMP/ Delink /Equivalent pre approved ISI make Cat 5 Mounting Cord 7 feet		Nos.		
7	Supply of AMP/ Delink/Equivalent pre approved ISI make Cat 5 Mounting Cord 4 feet		Nos.		
8	Supply of 12U wall mounting rack Delink /MTS / pre approved ISI make with accessories 800mm x 800mm. As per IS standards		Nos.		
9	Supply of 100 Pair Raiser Cable.as per IS standards		Mtrs.		
10	Supply of 50 Pair Raiser Cable. As per IS Standards		Mtrs.		
11	Supply of 9U Wall mounting rack Delink / MTS / pre approved make with accessories 800mm x 800mm. As per IS standards		Nos.		
12	Supply of 36U Floor mounting rack Delink /MTS / pre approved ISI make with accessories 800mm x 800mm. As per IS standards	1.00	Nos.		
13	Supply of AMP/ Delink/ pre approved ISI make single Face Plate	10.00	Nos.		
14	Supply of 100 pair krone connector including suitable MS box as per pre approved ISI Make as per IS Standards		Nos.		
15	Supply of 50 pair krone connector including suitable MS box as per pre approved ISI Make as per IS Standards	1.00	Nos.		
16	Supply of AMP/ Delink/ Equivalent pre approved ISI make Cat - 6 UTP cable. As per IS standards	2,000.00	Mtrs.		
17	Supply of AMP/ Delink /Equivalent pre approved ISI make Cat 6 Mounting Cord 7 feet	55.00	Nos.		
18	Supply of AMP/ Delink/Equivalent pre approved ISI make Cat 6 Mounting Cord 4 feet	60.00	Nos.		
19	Supply of 4U Wall mounting rack Delink / MTS / pre approved make with accessories 800mm x 400mm. As per IS standards for CCTV DVR / Site specific condition		Nos.		
B	<b>INSTALLATION</b>				
1	Laying of CAT 5 UTP Cable. Scope including suitable standard peruling and dressing as per IS standards	2,000.00	Mtrs.		
2	Termination of Information Outlet.	110.00	Nos.		
3	Termination of 24 Port Jack Panel.	6.00	Nos.		
4	Testing & Documentation of UTP Points.	110.00	Nos.		
5	Laying of raiser Cable 100 Pair.		Mtrs.		
6	Installation of Rack, 9U/ 12U/ 36 U as per standards		Nos.		
7	Installation of Rack, 36 U as per standards	1.00	Nos.		
8	Laying of raiser Cable 50 Pair.		Mtrs.		
9	Istallation and termination of 100 pair krone connector, as per pre approved ISI Make as per IS Standards		Nos.		
10	Installation and termination of 50 pair krone connector as per pre approved ISI Make as per IS Standards	1.00	Nos.		
		<b>TOTAL</b>			

