

SUMMARY FOR LABORATORY WORKS FOR NCSCM, CHENNAI

DESCRIPTION OF WORK	Unit / Item Cost Summary	Installation	TAXES			TOTAL
			Excise / Custom Duty	VAT	SERVICE TAX	
BILL NO 1- BOQ FOR LAB FUMEHOOD AND ACCESSORIES						
BILL NO 2 - BOQ FOR LAB FURNITURE AND ACCESSORIES						
BILL NO 3 - BOQ FOR EXHAUST SYSTEM AND ACCESSORIES						
BILL NO - 4 BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES						
SUBTOTAL						
GRAND TOTAL including taxes in words and figures						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 1

BOQ FOR LAB FUMEHOOD AND ACCESSORIES

SL.	DESCRIPTION	UNI	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
GROUND FLOOR									
6 FEET BENCH TOP FUMEHOOD									
1	6 FT BENCHTOP FUMEHOOD, COMBINATION SASH, RESTRICTED BYPASS, 54H x 36D x 72L.	Nos.	1						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	1						
3	PP CUPSINK 3x6x4	Nos.	1						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 3+3 NOS	Nos.	1						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	1						
6	REAR SCRIBE - 29Hx00Dx04L	Nos.	1						
7	REAR SCRIBE - 36Hx00Dx12L	Nos.	1						
8	REAR SCRIBE - 54Hx00Dx04L	Nos.	1						
9	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	1						
10	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	1						
11	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	1						
12	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	1						
13	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	1						
14	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS	Nos.	2						
15	FUMEHOOD GRANITE WORKTOP 72x31	Nos.	1						
16	LATTICE ASSMBLY FOR 6' BENCH TOP FUMEHOOD	Nos.	1						
6 FEET RADIO ISOTOPE BENCH TOP FUMEHOOD									
1	6 FT ISOTOPE BENCHTOP FUMEHOOD, VERTICAL SASH, RESTRICTED BYPASS, 54H x 36D x 72L.	Nos.	1						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	1						
3	PP CUPSINK 3x6x4	Nos.	1						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 3+3 NOS	Nos.	1						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	1						

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SL.	DESCRIPTION	UNI	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
5	SS 304 REAR SCRIBE - 29Hx00Dx04L	Nos.	2						
6	SS 304 REAR SCRIBE - 54Hx00Dx04L	Nos.	2						
7	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	1						
8	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	1						
9	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	1						
10	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	1						
11	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	1						
12	SS 304 BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS	Nos.	2						
13	FUMEHOOD GRANITE WORKTOP 72x31	Nos.	1						
SECOND FLOOR									
6 FEET BENCH TOP FUMEHOOD									
1	6 FT BENCHTOP FUMEHOOD, COMBINATION SASH, RESTRICTED BYPASS, 54H x 36D x 72L.	Nos.	2						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	2						
3	PP CUPSINK 3x6x4	Nos.	2						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 2+2 NOS	Nos.	2						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	2						
5	END SCRIBE - 36Hx00Dx12L	Nos.	2						
6	REAR SCRIBE - 29Hx00Dx04L	Nos.	3						
7	REAR SCRIBE - 36Hx00Dx12L	Nos.	1						
8	REAR SCRIBE - 54Hx00Dx04L	Nos.	3						
9	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	2						
10	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	2						
11	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	2						
12	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	2						
13	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	2						

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BOQ FOR LAB FUMEHOOD AND ACCESSORIES

SL.	DESCRIPTION	UNI	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
14	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS	Nos.	2						
15	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS, U1=TOE SPACE OF LEFT END	Nos.	1						
16	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS, U2=TOE SPACE OF RIGHT END	Nos.	1						
17	FUMEHOOD GRANITE WORKTOP 72x31	Nos.	2						
18	LATTICE ASSMBLY FOR 6' BENCH TOP FUMEHOOD	Nos.	2						
	6 FEET PERCHLORIC BENCH TOP FUMEHOOD								
1	6 FT PERCHLORIC BENCHTOP FUMEHOOD, VERTICAL SASH, RESTRICTED BYPASS, 54H x 36D x 72L.	Nos.	1						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	1						
3	PP CUPSINK 3x6x4	Nos.	1						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 2+2 NOS	Nos.	1						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	1						
5	END SCRIBE - 36Hx00Dx12L	Nos.	2						
6	REAR SCRIBE - 29Hx00Dx04L	Nos.	2						
7	REAR SCRIBE - 54Hx00Dx04L	Nos.	2						
8	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	1						
9	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	1						
10	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	1						
11	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	1						
12	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	1						
13	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS, U1=TOE SPACE OF LEFT END	Nos.	1						
14	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS, U2=TOE SPACE OF RIGHT END	Nos.	1						

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SL.	DESCRIPTION	UNI	QTY	UNIT PRICE	Installation	CUSTOMS / EXCISE DUTY	TAX VAT	SERVICE TAX	TOTAL
SECOND MEZZANINE FLOOR									
6 FEET BENCH TOP FUMEHOOD									
1	6 FT BENCHTOP FUMEHOOD, COMBINATION SASH, RESTRICTED BYPASS, 54H x 36D x 72L.	Nos.	2						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	2						
3	PP CUPSINK 3x6x4	Nos.	2						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 3+3 NOS	Nos.	2						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	2						
5	REAR SCRIBE - 29Hx00Dx04L	Nos.	2						
6	REAR SCRIBE - 36Hx00Dx12L	Nos.	1						
7	REAR SCRIBE - 54Hx00Dx04L	Nos.	2						
8	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	2						
9	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	2						
10	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	2						
11	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	2						
12	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	2						
13	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS	Nos.	4						
14	FUMEHOOD GRANITE WORKTOP 72x31	Nos.	2						
15	LATTICE ASSMBLY FOR 6' BENCH TOP FUMEHOOD	Nos.	2						
6 FEET BENCH TOP FUMEHOOD (48" DEPTH)									
1	6 FT BENCHTOP FUMEHOOD, COMBINATION SASH, RESTRICTED BYPASS, 54H x 36D x 72L., X2=48" DEPTH	Nos.	1						
2	FUME HOOD CEILING ENCLOSURE 6FT WITH ACCESS	Nos.	1						
3	PP CUPSINK 3x6x4	Nos.	1						
4	FUMEHOOD ELECTRICAL SYSTEM 5/15A SOCKETS 3+3 NOS	Nos.	1						
5	FUMEHOOD MICROPROCESSOR BASED AIRFLOW MONITOR AND ALARM - VERTICAL - C/W SM6 SENSOR, SUITABLE POWER ADAPTOR	Nos.	1						

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BOQ FOR LAB FUMEHOOD AND ACCESSORIES

SL.	DESCRIPTION	UNI	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
5	REAR SCRIBE - 29Hx00Dx04L	Nos.	1						
6	REAR SCRIBE - 36Hx00Dx24L	Nos.	1						
7	REAR SCRIBE - 54Hx00Dx04L	Nos.	1						
8	FUMEHOOD FRONT CONTROL VALVE FOR COMPRESSED AIR	Nos.	1						
9	FUMEHOOD FRONT CONTROL VALVE FOR NITROGEN	Nos.	1						
10	FUMEHOOD FRONT CONTROL VALVE FOR VACUUM	Nos.	1						
11	FUMEHOOD FRONT CONTROL VALVE FOR RAW WATER	Nos.	1						
12	FUMEHOOD INTERNAL PIPING FOR 4 NOS SERVICE	Nos.	1						
13	BASE UNIT 2 DOOR - 36Hx22Dx36L, X=WITH VENT HOLE AND LOUVERS	Nos.	2						
14	FUMEHOOD GRANITE WORKTOP 72x31 X2=WITH 48" DEPTH	Nos.	1						
15	FLOOR STANDING WORKTOP SUPPORT OF SIZE: 36Hx08L	Nos.	5						
16	LATTICE ASSMBLY FOR 6' BENCH TOP FUMEHOOD	Nos.	1						
TOTAL OF ANNEXURE - I									

Note:

- 1 The tie in of water and drain for sinks has to be done by Client
- 2 The cabling & tie in to the DB above the hood has to be done by Client.
- 3 The tie in of piping from the header to the internal piping (150mm above or below the hood)

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
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BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
GROUND FLOOR									
1	CEILING BRACKET FOR SPOT EXTRACTOR 4x4x38	Nos.	6						
2	CEILING BRACKET FOR EMERGENCY SHOWER 4x4x38	Nos.	1						
3	32A-THREE PHASE INDUSTRIAL SOCKET (BCH MAKE) WITH 5 PIN SOCKET & 20A MCB TINY TRIP WITH PLUG TOP (METAL)	Nos.	2						
4	6/16A SOCKET WITH SWITCH R= WITH RAW POWER	Nos.	143						
5	6/16A SOCKET WITH SWITCH U=WITH UPS POWER	Nos.	34						
6	APRON RAIL - 04Hx02Dx30L	Nos.	40						
7	KNEE SPACE PANEL - 24Hx00Dx30L	Nos.	6						
8	KNEE SPACE PANEL - 30Hx00Dx30L	Nos.	17						
9	PEDESTAL ASSY LEFT - 29Hx22Dx02L	Nos.	1						
10	WORKTOP SUPPORT FRAME - 01Hx22Dx30L	Nos.	6						
11	METAL ANTI VIBRATION TABLE WITH GRANITE AT CENTER 31(H) x 22(D) x 30(L)	Nos.	2						
12	BASE UNIT OPEN - 36Hx22Dx18L	Nos.	1						
13	BASE UNIT OPEN - 36Hx22Dx30L	Nos.	3						
14	END SCRIBE - 30Hx00Dx02L	Nos.	1						
15	END SCRIBE - 36Hx00Dx02L	Nos.	2						
16	END SCRIBE - 36Hx00Dx04L	Nos.	1						
17	END SCRIBE - 36Hx00Dx05L	Nos.	2						
18	END SCRIBE - 36Hx00Dx06L	Nos.	1						
19	END SCRIBE - 36Hx00Dx08L	Nos.	1						
20	SS 304 END SCRIBE - 36Hx00Dx04L	Nos.	1						
21	FINISHED BACK - 36Hx01Dx60L, S=WITH SLIDING DOOR	Nos.	2						
22	WALL MOUNTING BRACKET FOR SERVICE FIXTURE 10x4x4	Nos.	1						
23	REAR SCRIBE - 30Hx00Dx07L	Nos.	3						
24	REAR SCRIBE - 30Hx00Dx12L	Nos.	2						
25	REAR SCRIBE - 30Hx00Dx17L	Nos.	2						

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SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
26	REAR SCRIBE - 36Hx00Dx06L	Nos.	1						
27	REAR SCRIBE - 36Hx00Dx07L	Nos.	2						
28	REAR SCRIBE - 36Hx00Dx12L	Nos.	4						
29	REAR SCRIBE - 36Hx00Dx14L	Nos.	2						
30	REAR SCRIBE - 36Hx00Dx16L	Nos.	1						
31	REAR SCRIBE - 36Hx00Dx17L	Nos.	1						
32	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR P10 GAS	Nos.	1						
33	BENCH FITTING WITH 2 NEEDLE VALVE 180° FOR NITROGEN	Nos.	1						
34	WALL FITTING WITH 1 NEEDLE VALVE FOR ARGON	Nos.	1						
35	BENCH MOUNTED 1-WAY WATER FITTING WITH 8" RIGID/SWING GOOSENECK FOR RAW WATER	Nos.	9						
36	BASE UNIT 1 DOOR - 30Hx22Dx18L	Nos.	1						
37	BASE UNIT 2 DOOR - 30Hx22Dx30L	Nos.	1						
38	BASE UNIT 2 DOOR - 36Hx22Dx30L	Nos.	5						
39	CABLE MANAGER DIA 2.5	Nos.	6						
40	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx18L	Nos.	1						
41	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx24L	Nos.	1						
42	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx24L	Nos.	1						
43	BASE UNIT 2 DOOR 1 DRAWER - 30Hx22Dx30L	Nos.	9						
44	BASE UNIT 2 DOOR 1 DRAWER - 30Hx22Dx36L	Nos.	2						
45	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx15L	Nos.	1						
46	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx24L	Nos.	1						
47	BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx30L	Nos.	32						
48	BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx36L	Nos.	3						
49	SS 304 BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx24L	Nos.	1						
50	SS 304 BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx30L	Nos.	1						
51	DOUBLE SIDE SOCKET BOX 12x8x4	Nos.	4						
52	METAL ELECTRICAL RACEWAY, 3x5	In	2,524						

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SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
53	SINGLE SIDE SOCKET BOX 12x4x4	Nos.	1						
54	BASE MOLDING 4 FT.	Nos.	143						
55	CORNER CLIP	Nos.	116						
56	KEY BOARD TRAY 24x12	Nos.	6						
57	BASE UNIT SINK 2 DOOR - 36Hx22Dx30L	Nos.	6						
58	BASE UNIT SINK 2 DOOR - 36Hx22Dx36L	Nos.	1						
59	SS 304 BASE UNIT SINK 2 DOOR - 36Hx22Dx30L	Nos.	1						
60	BASE UNIT CORNER 1 DOOR - 30Hx22Dx14L	Nos.	2						
61	BASE UNIT CORNER 1 DOOR - 36Hx22Dx14L	Nos.	2						
62	CEILING MOUNTED SAFETY SHOWER	Nos.	1						
63	BASE UNIT CORNER SINK 1 DOOR - 30Hx22Dx14L	Nos.	1						
64	DECK MOUNTED DOUBLE HEAD EYE WASH/DRENCH	Nos.	9						
65	FLOOR STANDING WORKTOP SUPPORT OF SIZE: 30Hx08L	Nos.	4						
66	FLOOR STANDING WORKTOP SUPPORT OF SIZE: 36Hx08L	Nos.	10						
67	WALL MOUNTED WORKTOP SUPPORT ANGLE, 2Dx2Hx12L	Nos.	28						
68	LOCKER - 84Hx22Dx36L	Nos.	1						
69	CEILING MOUNTED SPOT EXTRACTOR WITH 15" DIA HOOD	Nos.	6						
70	OPEN RACK OF SIZE: 84Hx22Dx30L	Nos.	3						
71	OPEN RACK OF SIZE: 84Hx22Dx36L	Nos.	2						
72	ACRYLIC PEG BOARD WITH 33 PEGS WITH SS TRAY 30x30	Nos.	1						
73	PP SINK, SIZE: 560Lx355Dx245Hmm AND BOWL SIZE: 500Lx293Dx245Hmm	Nos.	9						
74	WASTE, 1 1/2" BSP X 76mm.	Nos.	9						
75	ANTI SIPHON BOTTLE TRAP.	Nos.	9						
76	REDUCING COUPLER IN PP 51 X 31MM + PP PIPE LENGTHS - ONE FEET LENGTH - DIA. 38MM	Nos.	9						
77	WARDROBE STORAGE TALL UNIT WITH SWINGING PANEL DOOR HAVING TWO SHELF AND ONE APRON HANGING ROD - 84Hx22Dx36L	Nos.	1						
78	TALL UNIT SWINGING PANEL WITH VENT HOLE AND LOUVERS - 84Hx22Dx36L	Nos.	4						

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SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
79	SERVICE DROPPER OF SIZE: 4x4x112	Nos.	3						
80	SERVICE ENCLOSURE FOR CENTRE BENCH 12x6x112	Nos.	1						
81	SERVICE ENCLOSURE FOR WALL BENCH 12x6x112	Nos.	13						
82	20mm THK. SS 304 WORKTOP WITH SKIRTING IN SFT	Sft.	28						
83	SS 304 CROSS OVER BENCH 18Hx14Dx109L , X= 450mm Hx350mm Dx2787mm L	Nos.	1						
84	18/19mm THK. GRANITE WORKTOP IN SFT	Sft.	739						
85	GRANITE SKIRTING. 4x1	Rft.	250						
FIRST FLOOR									
1	CEILING BRACKET FOR SPOT EXTRACTOR 4x4x38	Nos.	5						
2	6/16A SOCKET WITH SWITCH (RAW POWER)	Nos.	18						
3	6/16A SOCKET WITH SWITCH (UPS POWER)	Nos.	80						
4	APRON RAIL - 04Hx02Dx30L	Nos.	24						
5	KNEE SPACE PANEL - 24Hx00Dx30L	Nos.	24						
6	PEDESTAL ASSY RIGHT - 29Hx22Dx02L	Nos.	1						
7	WORKTOP SUPPORT FRAME - 01Hx22Dx30L	Nos.	24						
8	METAL ANTI VIBRATION TABLE WITH GRANITE AT CENTER 31(H) x 22(D) x 30(L)	Nos.	3						
9	END SCRIBE - 30Hx00Dx02L	Nos.	1						
10	END SCRIBE - 30Hx00Dx10L	Nos.	1						
11	FINISHED BACK - 30Hx01Dx36L, S=WITH SLIDING DOOR	Nos.	2						
12	FINISHED BACK - 30Hx01Dx48L, S=WITH SLIDING DOOR	Nos.	10						
13	FINISHED BACK - 30Hx01Dx60L, S=WITH SLIDING DOOR	Nos.	16						
14	REAR SCRIBE - 30Hx00Dx01L	Nos.	4						
15	REAR SCRIBE - 30Hx00Dx03L	Nos.	1						
16	REAR SCRIBE - 30Hx00Dx04L	Nos.	1						
17	REAR SCRIBE - 30Hx00Dx07L	Nos.	2						
18	REAR SCRIBE - 30Hx00Dx10L	Nos.	14						
19	REAR SCRIBE - 30Hx00Dx11L	Nos.	1						

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						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
20	REAR SCRIBE - 30Hx00Dx12L	Nos.	3						
21	REAR SCRIBE - 30Hx00Dx23L	Nos.	2						
22	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR CARBON DI OXIDE	Nos.	2						
23	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR HELIUM	Nos.	4						
24	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR NITROGEN	Nos.	5						
25	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR ZERO AIR	Nos.	6						
26	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR HYDROGEN	Nos.	3						
27	BENCH FITTING WITH 1 NEEDLE VALVE 90° FOR OXYGEN	Nos.	6						
28	BENCH MOUNTED 1-WAY WATER FITTING WITH 8" RIGID/SWING GOOSENECK FOR RAW WATER	Nos.	2						
29	BASE UNIT 2 DOOR - 30Hx22Dx30L	Nos.	2						
30	BASE UNIT 2 DOOR - 30Hx22Dx36L	Nos.	1						
31	CABLE MANAGER DIA 2.5	Nos.	24						
32	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx18L	Nos.	8						
33	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx18L	Nos.	7						
34	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx24L	Nos.	1						
35	BASE UNIT 2 DOOR 1 DRAWER - 30Hx22Dx30L	Nos.	26						
36	BASE UNIT 2 DOOR 1 DRAWER - 30Hx22Dx36L	Nos.	1						

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SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
37	METAL ELECTRICAL RACEWAY, 3x5	In	1,932						
38	BASE MOLDING 4 FT.	Nos.	84						
39	CORNER CLIP	Nos.	80						
40	KEY BOARD TRAY 24x12	Nos.	24						
41	BASE UNIT SINK 2 DOOR - 30Hx22Dx30L	Nos.	1						
42	BASE UNIT CORNER SINK 1 DOOR - 30Hx22Dx14L	Nos.	1						
43	DECK MOUNTED DOUBLE HEAD EYE WASH/DRENCH	Nos.	2						
44	FOUR LEGGED BENCH UNIT 30Hx16Dx36L	Nos.	5						
45	FOUR LEGGED BENCH UNIT 30Hx16Dx48L	Nos.	7						
46	FOUR LEGGED BENCH UNIT 30Hx16Dx48L, X= FRONT ONLY COVERED WITHOUT TOE SPACE	Nos.	2						
47	WALL MOUNTED WORKTOP SUPPORT ANGLE, 2Dx2Hx12L	Nos.	2						
48	CEILING MOUNTED SPOT EXTRACTOR WITH 15" DIA HOOD	Nos.	5						
49	CEILING MOUNTED SS SPOT EXTRACTOR	Nos.	1						
50	PP SINK, SIZE: 560Lx355Dx245Hmm AND BOWL SIZE: 500Lx293Dx245Hmm	Nos.	2						
51	WASTE, 1 1/2" BSP X 76mm.	Nos.	2						
52	ANTI SIPHON BOTTLE TRAP.	Nos.	2						
53	REDUCING COUPLER IN PP 51 X 31MM + PP PIPE LENGTHS - ONE FEET LENGTH - DIA. 38MM	Nos.	2						
54	DATA SOCKET	Nos.	1						
55	WARDROBE STORAGE TALL UNIT WITH SWINGING PANEL DOOR HAVING TWO SHELF AND ONE APRON HANGING ROD - 84Hx22Dx36L	Nos.	3						
56	SERVICE DROPPER OF SIZE: 4x4x112	Nos.	2						
57	SERVICE ENCLOSURE FOR WALL BENCH 12x6x112	Nos.	1						
58	SERVICE ENCLOSURE FOR CENTRE BENCH 20x7x112	Nos.	6						
59	CEILING BRACKET FOR SS SPOT EXTRACTOR 2x3x38	Nos.	1						
60	18/19mm THK. GRANITE WORKTOP IN SFT	Sft.	584						
61	GRANITE SKIRTING. 4x1	Rft.	40						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
SECOND FLOOR									
1	CEILING BRACKET FOR SPOT EXTRACTOR 4x4x38	Nos.	12						
2	CEILING BRACKET FOR EMERGENCY SHOWER 4x4x38	Nos.	2						
3	32A-THREE PHASE INDUSTRIAL SOCKET (BCH MAKE) WITH 5 PIN SOCKET & 20A MCB TINY TRIP WITH PLUG TOP (METAL) R=WITH RAW POWER	Nos.	1						
4	6/16A SOCKET WITH SWITCH R=WITH RAW POWER	Nos.	268						
5	APRON RAIL - 04Hx02Dx30L	Nos.	73						
6	KNEE SPACE PANEL - 24Hx00Dx30L	Nos.	5						
7	KNEE SPACE PANEL - 30Hx00Dx30L	Nos.	35						
8	WORKTOP SUPPORT FRAME - 01Hx22Dx30L	Nos.	5						
9	METAL ANTI VIBRATION TABLE WITH GRANITE AT CENTER 31(H) x 22(D) x 30(L)	Nos.	3						
10	METAL ANTI VIBRATION TABLE WITH GRANITE AT CENTER 37(H) x 22(D) x 30(L)	Nos.	7						
11	END SCRIBE - 36Hx00Dx07L	Nos.	8						
12	FINISHED BACK - 30Hx01Dx60L, S=WITH SLIDING DOOR	Nos.	8						
13	REAR SCRIBE - 30Hx00Dx06L	Nos.	2						
14	REAR SCRIBE - 30Hx00Dx07L	Nos.	1						
15	REAR SCRIBE - 30Hx00Dx11L	Nos.	4						
16	REAR SCRIBE - 36Hx00Dx07L	Nos.	6						
17	REAR SCRIBE - 36Hx00Dx12L	Nos.	4						
18	REAR SCRIBE - 36Hx00Dx14L	Nos.	4						
19	REAR SCRIBE - 36Hx00Dx26L	Nos.	2						
20	BENCH MOUNTED 1-WAY WATER FITTING WITH 8" RIGID/SWING GOOSENECK FOR HOT AND COLD WATER	Nos.	1						
21	BENCH MOUNTED 1-WAY WATER FITTING WITH 8" RIGID/SWING GOOSENECK FOR RAW WATER	Nos.	7						
22	BASE UNIT 2 DOOR - 36Hx22Dx30L	Nos.	1						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
23	CABLE MANAGER DIA 2.5	Nos.	5						
24	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx18L	Nos.	2						
25	BASE UNIT 1 DOOR 1 DRAWER - 30Hx22Dx18L	Nos.	1						
26	BASE UNIT 2 DOOR 1 DRAWER - 30Hx22Dx30L	Nos.	14						
27	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx15L	Nos.	1						
28	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx15L	Nos.	1						
29	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx18L	Nos.	3						
30	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx18L	Nos.	2						
31	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx24L	Nos.	1						
32	BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx30L	Nos.	70						
33	DOUBLE SIDE SOCKET BOX, 8x4	In	690						
34	METAL ELECTRICAL RACEWAY, 3x5	In	1,985						
35	BASE MOLDING 4 FT.	Nos.	138						
36	CORNER CLIP	Nos.	150						
37	KEY BOARD TRAY 24x12	Nos.	5						
38	BASE UNIT SINK 2 DOOR - 30Hx22Dx30L	Nos.	1						
39	BASE UNIT SINK 2 DOOR - 36Hx22Dx30L	Nos.	1						
40	BASE UNIT 2 DOOR - 36Hx22Dx58L	Nos.	4						
41	BASE UNIT CORNER 1 DOOR - 36Hx22Dx14L	Nos.	1						
42	CEILING MOUNTED SAFETY SHOWER	Nos.	2						
43	BASE UNIT CORNER SINK 1 DOOR - 36Hx22Dx14L	Nos.	2						
44	DECK MOUNTED DOUBLE HEAD EYE WASH/DRENCH	Nos.	8						
45	SAFETY CABINET FOR SOLVENT STORAGE 60 GAL (FM)(SELF CLOSE) SIZE: 65"(H)x34"(L)x34"(D)	Nos.	3						
46	SAFETY CABINET FOR ACID STORAGE 60 GAL (FM)(SELF CLOSE) SIZE: 65"(H)x34"(L)x34"(D)	Nos.	3						
47	REAGENT GRANITE SUPPORT 08x53	Nos.	8						
48	REAGENT GRANITE SUPPORT 08x54	Nos.	4						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
49	REAGENT GRANITE SUPPORT 08x56	Nos.	8						
50	REAGENT GRANITE SUPPORT 08x58	Nos.	16						
51	FOUR LEGGED BENCH UNIT 36Hx22Dx48L	Nos.	6						
52	WALL MOUNTED WORKTOP SUPPORT ANGLE, 2Dx2Hx12L	Nos.	22						
53	CEILING MOUNTED SPOT EXTRACTOR WITH 15" DIA HOOD	Nos.	12						
54	CEILING MOUNTED SS SPOT EXTRACTOR	Nos.	1						
55	OPEN RACK OF SIZE: 84Hx22Dx30L	Nos.	9						
56	ACRYLIC PEG BOARD WITH 33 PEGS WITH SS TRAY 30x30	Nos.	4						
57	PP SINK, SIZE: 560Lx355Dx245Hmm AND BOWL SIZE: 500Lx293Dx245Hmm	Nos.	8						
58	WASTE, 1 1/2" BSP X 76mm.	Nos.	8						
59	ANTI SIPHON BOTTLE TRAP.	Nos.	8						
60	REDUCING COUPLER IN PP 51 X 31MM + PP PIPE LENGTHS - ONE FEET LENGTH - DIA. 38MM	Nos.	8						
61	DATA SOCKET	Nos.	2						
62	TALL UNIT SWINGING GLAZED - 84Hx31Dx24L	Nos.	2						
63	TALL UNIT SWINGING GLAZED - 84Hx31Dx36L	Nos.	13						
64	WARDROBE STORAGE TALL UNIT WITH SWINGING PANEL DOOR HAVING TWO SHELF AND ONE APRON HANGING ROD - 84Hx22Dx36L	Nos.	4						
65	SERVICE ENCLOSURE FOR CENTRE BENCH 12x6x112	Nos.	4						
66	SERVICE ENCLOSURE FOR WALL BENCH 12x6x112	Nos.	10						
67	CEILING BRACKET FOR SS SPOT EXTRACTOR 2x3x38	Nos.	1						
68	REAGENT RACK UPRIGHT, SIZE: 24(H)x10(W)x2(D)	Nos.	23						
69	GRANITE REAGENT SHELF 12x53	Nos.	8						
70	GRANITE REAGENT SHELF 12x54	Nos.	4						
71	GRANITE REAGENT SHELF 12x56	Nos.	8						
72	GRANITE REAGENT SHELF 12x58	Nos.	16						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
73	18/19mm THK. GRANITE WORKTOP IN SFT	Sft.	815						
74	GRANITE SKIRTING. 4x1	Rft.	140						
SECOND MEZZANINE FLOOR									
1	CEILING BRACKET FOR SPOT EXTRACTOR 4x4x38	Nos.	1						
2	6/16A SOCKET WITH SWITCH R=RAW POWER	Nos.	82						
3	6/16A SOCKET WITH SWITCH U=WITH UPS POWER	Nos.	48						
4	APRON RAIL - 04Hx02Dx24L	Nos.	24						
5	APRON RAIL - 04Hx02Dx30L	Nos.	30						
6	APRON RAIL - 04Hx02Dx36L	Nos.	2						
7	KNEE SPACE PANEL - 30Hx00Dx24L	Nos.	12						
8	KNEE SPACE PANEL - 30Hx00Dx30L	Nos.	15						
9	KNEE SPACE PANEL - 30Hx00Dx36L	Nos.	1						
10	PEDESTAL ASSY LEFT - 36Hx22Dx02L	Nos.	2						
11	PEDESTAL ASSY RIGHT - 36Hx22Dx02L	Nos.	1						
12	END SCRIBE - 36Hx00Dx02L	Nos.	1						
13	END SCRIBE - 36Hx00Dx03L	Nos.	1						
14	END SCRIBE - 36Hx00Dx05L	Nos.	1						
15	END SCRIBE - 36Hx00Dx06L	Nos.	2						
16	END SCRIBE - 36Hx00Dx30L	Nos.	1						
17	FINISHED BACK - 36Hx01Dx60L, S=WITH SLIDING DOOR	Nos.	2						
18	REAR SCRIBE - 36Hx00Dx11L	Nos.	1						
19	REAR SCRIBE - 36Hx00Dx12L	Nos.	1						
20	REAR SCRIBE - 36Hx00Dx14L	Nos.	4						
21	REAR SCRIBE - 36Hx00Dx17L	Nos.	4						
22	REAR SCRIBE - 36Hx00Dx18L	Nos.	1						
23	BENCH MOUNTED 1-WAY WATER FITTING WITH 8" RIGID/SWING GOOSENECK FOR RAW WATER	Nos.	3						
24	BASE UNIT 1 DOOR - 36Hx22Dx18L	Nos.	1						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
25	BASE UNIT 2 DOOR - 36Hx22Dx30L	Nos.	4						
26	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx15L	Nos.	14						
27	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx15L	Nos.	12						
28	BASE UNIT 1 DOOR 1 DRAWER - 36Hx22Dx24L	Nos.	1						
29	BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx30L	Nos.	27						
30	BASE UNIT 2 DOOR 1 DRAWER - 36Hx22Dx36L	Nos.	1						
31	DOUBLE SIDE SOCKET BOX 12x8x4	Nos.	3						
32	METAL ELECTRICAL RACEWAY, 3x5	In	1,930						
33	BASE MOLDING 4 FT.	Nos.	90						
34	CORNER CLIP	Nos.	90						
35	BASE UNIT SINK 2 DOOR - 36Hx22Dx30L	Nos.	1						
36	BASE UNIT CORNER 1 DOOR - 36Hx22Dx14L	Nos.	3						
37	BASE UNIT CORNER SINK 1 DOOR - 36Hx22Dx14L	Nos.	2						
38	DECK MOUNTED DOUBLE HEAD EYE WASH/DRENCH	Nos.	3						
39	REAGENT GRANITE SUPPORT 08x48	Nos.	4						
40	REAGENT GRANITE SUPPORT 08x50	Nos.	2						
41	FLOOR STANDING WORKTOP SUPPORT OF SIZE: 36Hx08L	Nos.	37						
42	WALL MOUNTED WORKTOP SUPPORT ANGLE, 2Dx2Hx12L	Nos.	25						
43	CEILING MOUNTED SPOT EXTRACTOR WITH 15" DIA HOOD	Nos.	1						
44	ACRYLIC PEG BOARD WITH 33 PEGS WITH SS TRAY 30x30	Nos.	1						
45	PP SINK, SIZE: 560Lx355Dx245Hmm AND BOWL SIZE: 500Lx293Dx245Hmm	Nos.	3						
46	WASTE, 1 1/2" BSP X 76mm.	Nos.	3						
47	ANTI SIPHON BOTTLE TRAP.	Nos.	3						
48	REDUCING COUPLER IN PP 51 X 31MM + PP PIPE LENGTHS - ONE FEET LENGTH - DIA. 38MM	Nos.	3						
49	WARDROBE STORAGE TALL UNIT WITH SWINGING PANEL DOOR HAVING TWO SHELF AND ONE APRON HANGING ROD - 84Hx22Dx36L	Nos.	3						
50	SERVICE DROPPER OF SIZE: 4x4x112	Nos.	1						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 2

BOQ FOR LAB FURNITURE AND ACCESSORIES

SL.	DESCRIPTION	UNIT	QTY	UNIT PRICE	Installation	TAX			TOTAL
						CUSTOMS / EXCISE / DUTY	VAT	SERVICE TAX	
51	SERVICE ENCLOSURE FOR CENTRE BENCH 12x6x112	Nos.	2						
52	SERVICE ENCLOSURE FOR WALL BENCH 12x6x112	Nos.	5						
53	REAGENT RACK UPRIGHT, SIZE: 24(H)x10(W)x2(D)	Nos.	4						
54	GRANITE REAGENT SHELF 12x48	Nos.	4						
55	GRANITE REAGENT SHELF 12x50	Nos.	2						
56	18/19mm THK. GRANITE WORKTOP IN SFT	Sft.	643						
57	GRANITE SKIRTING. 4x1	Rft.	165						
TOTAL OF BILL - II									

Note:

- 1 The thickness of granite worktop is 18/19mm.
- 2 The cabling & tie in to electrical sockets has to be done by Client.
- 3 The tie in of water and drain for sinks has to be done by Client
- 4 Air Curtain in not in Scope
- 5 Wooden Furniture Mentioned in the Drawing is not in Scope

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
A	CENTRIFUGAL BLOWER, MOTOR & ACCESSORIES								
1	Medium Pressure Direct Driven PP Centrifugal Blowers (For 2042,2602 cfm @110,110 mm WG Static pressure) including suitable clamp adapter, Electro galvanized stand base frame for Centrifugal Blowers model. Cluster 6 & 10	Nos.	2						
1.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	8						
1.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	8						
1.3	M10x100 pin type anchor fasteners	Nos.	8						
1.4	25x25x14g thk PP Bird mesh for dia 300mm Bypass end connection	Nos.	2						
1.5	Dia 315mm and 3mm thickness PVC Transparent flexible connection for inlet of the blower.	Nos.	2						
1.6	Dia 315mm and 3mm thickness PVC Transparent flexible connection for outlet of the blower.	Nos.	2						
2	Motor 3.7KW /4P(5HP/4P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application. Terminal box should be on top side.	Nos.	2						
2.1	Weather cowl Dia 350mm, (1.48 Sqmts).	Nos.	2						
2.2	Stack support (Kg:- 75 Kgs).	Nos.	2						
2.3	Motor Guard with accessories for 5HP/4P	Set	2						
3	Medium Pressure Direct Driven PP Centrifugal Blowers (For 1353,1753 cfm @ 110,110 mm WG Static pressure) including suitable clamp adapter, Electro galvanized stand base frame for Centrifugal Blowers. Cluster 2 & 8	Nos.	2						
3.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	8						
3.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	8						
3.3	M10x100 pin type anchor fasteners	Nos.	8						
3.4	25x25x14g thk PP Bird mesh for dia 300mm Bypass end connection	Nos.	2						
3.5	Dia 250mm and 3mm thickness PVC Transparent flexible connection for inlet of the blower.	Nos.	2						
3.6	Dia 250mm and 3mm thickness PVC Transparent flexible connection for outlet of the blower.	Nos.	2						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
4	Motor 3.7KW /2P(5HP/2P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application. Terminal box should be on top side.	Nos.	2						
4.1	Weather cowl Dia 250mm , (0.8 Sqmts).	No.	2						
4.2	Stack support (Kg:- 65 Kgs).	No.	2						
4.3	Motor Guard with accessories for 5HP/2P	Set	2						
5	Medium Pressure Direct Driven PP Centrifugal Blowers (For 231,578 cfm @ 60,60 mm WG Static pressure) including suitable clamp adapter, Electro galvanized stand base frame for Centrifugal Blowers. Cluster 3 & 4	Nos.	2						
5.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	8						
5.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	8						
5.3	M10x100 pin type anchor fasteners	Nos.	8						
5.4	25x25x14g thk PP Bird mesh for dia 150mm Bypass end connection	No	1						
5.5	25x25x14g thk PP Bird mesh for dia 100mm Bypass end connection	No	1						
5.6	Dia 160mm and 3mm thickness PVC Transparent flexible connection for inlet of the blower.	Nos.	2						
5.7	Dia 160mm and 3mm thickness PVC Transparent flexible connection for outlet of the blower.	Nos.	2						
6	Motor 0.55KW /2P(0.75HP/2P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application. Terminal box should be on top side.	No	1						
7	Motor 0.75KW /2P(1HP/2P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application. Terminal box should be on top side.	No	1						
7.1	Weather cowl Dia 200mm , (0.54 Sqmts).	No.	2						
7.2	Stack support (Kg:- 45 Kgs).	No.	2						
7.3	Motor Guard with accessories for 1HP/2P	Set	1						
7.4	Motor Guard with accessories for 0.75HP/2P	Set	1						
B	VARIABLE FREQUENCY DRIVE								

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
1	Variable Frequency Drives of following capacity								
1.1	Variable Frequency Drive- 3.7 KW for Fume Hood Exhaust blower 2,6,8,10	Nos.	4						
1.2	Variable Frequency Drive- 0.75 KW for Fume Hood Exhaust blower 4	No	1						
1.3	Variable Frequency Drive- 0.55 KW for Fume Hood Exhaust blower 3	No	1						
C	PP/FRP DUCTING & ACCESSORIES								
1	PP/FRP ducting using 3mm thick PPGL sheets with 2mm thick FRP lining using polyester resin including flanges & bends.	Sq.mts.	300						
2	PP/FRP 12" dia. single leaf Butterfly Manual damper with one side flanges for Fume Hood.	Nos.	6						
5	PP/FRP 8" dia. single leaf Butterfly Manual damper with both side flanges for Spot Extractor Subheader	No	1						
6	PP/FRP 6" dia. single leaf Butterfly Manual damper with both side flanges for Spot Extractor Subheader	Nos.	12						
7	PP/FRP 12" dia. single leaf Butterfly Manual damper with both side flanges for Bypass Cluster 2,6,8 & 10.	Nos.	4						
9	PP/FRP 4" dia. single leaf Butterfly Manual damper with both side flanges for Bypas Cluster 3 and 4	No	2						
10	12" Dia flexible hose with 14" Dia. Clips for Fume Hoods (0.5 Meter as 1 No)	Rmts	3						
11	4" Dia flexible hose with 6" Dia. Clips for Spot Extractors (1 Meter as 1 No)	Rmts	24						
12	4" Dia flexible hose with 6" Dia. Clips for Tall Units (1 Meter as 1 No)	Rmts	4						
13	Fume Hood base cabinet ducting with accessories	Nos.	6						
13	2" Flexible Hose	Rmts	12						
13	Dia 2"- 90° Elbow with both the end Male threading	Nos.	12						
13	Hose connector Tee Joint	Nos	6						
13	2" Chuck Nut	Nos.	12						
14	2"Hose Nipple or Hose Collar (IT) with one end Female threading	Nos.	12						
14	3" Hose Clips	Nos.	36						
D	SCRUBBERS & ACCESSORIES								

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
1	<p>Type: Vertical with integrated liquid tank, Material: PP/FRP, Airflow: (2602,2046) CFM Temperature: 60deg C (max.), Pressure drop: 500Pa (approx.), Dimension: Dia 750mm & Height 3400mm (approx.).Makeup Water Connection with , Control Valve, Water Level Indicator. Size Drain with Control Valve & Over Flow Pipe.Scrubber Recirculation Pump with pump inlet Flange connection with Y-Strainer, Outlet Flange Connection with NRV Ball Valve, Delivery Pipe with the Supports. inlet and outlet flanged connections with gasket and Bolt Nuts. Scrubber Pump of 0.5 HP, 3phase 50Hz, 415Volts, 46 Lpm. Including Dosing Plug with Valve, Mounting Bolt & Nuts with Anti Vibration Pads, Including ladder with Handrial,Recirculation Pump Enclosure</p>	No.	2						
2	<p>Type: Vertical with integrated liquid tank, Material: PP/FRP, Airflow: (1793) CFM Temperature: 60deg C (max.), Pressure drop: 500Pa (approx.), Dimension: Dia 650mm & Height 3300mm (approx.).Makeup Water Connection with , Control Valve, Water Level Indicator. Size Drain with Control Valve & Over Flow Pipe.Scrubber Recirculation Pump with pump inlet Flange connection with Y-Strainer, Outlet Flange Connection with NRV Ball Valve, Delivery Pipe with the Supports. inlet and outlet flanged connections with gasket and Bolt Nuts. Scrubber Pump of 0.5 HP, 3phase 50Hz, 415Volts, 33 Lpm. Including Dosing Plug with Valve, Mounting Bolt & Nuts with Anti Vibration Pads, Including ladder with Handrial,Recirculation Pump Enclosure</p>	Nos.	1						
3	<p>Type: Vertical with integrated liquid tank, Material: PP/FRP, Airflow: (1353) CFM Temperature: 60deg C (max.), Pressure drop: 500Pa (approx.), Dimension: Dia 600mm & Height 3200mm (approx.).Makeup Water Connection with , Control Valve, Water Level Indicator. Size Drain with Control Valve & Over Flow Pipe.Scrubber Recirculation Pump with pump inlet Flange connection with Y-Strainer, Outlet Flange Connection with NRV Ball Valve, Delivery Pipe with the Supports. inlet and outlet flanged connections with gasket and Bolt Nuts. Scrubber Pump of 0.5 HP, 3phase 50Hz, 415Volts, 33 Lpm. Including Dosing Plug with Valve, Mounting Bolt & Nuts with Anti Vibration Pads, Including ladder with Handrial,Recirculation Pump Enclosure</p>	No.	1						
E	SS BLOWER, MOTOR & ACCESSORIES								

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
1	SS 304 Medium Pressure Direct Driven Centrifugal Blowers (For 1419 cfm @ 40mm WG Static pressure) along with Motor of 1.1KW /4P(1.5HP/4P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor	Nos.	1						
1.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	4						
1.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	4						
1.3	M10x100 pin type anchor fasteners	Nos.	4						
1.4	25x25x14g thk SS Bird mesh for dia 200mm Bypass end connection	Nos.	1						
1.5	SS304 Weather cowl Dia 250mm, (0.8 Sqmts).	Nos.	1						
1.6	Stack support for SS Blower Model, (Kg:- 65 Kgs).	Nos.	1						
1.7	Motor Guard with accessories for 1.5HP/4P	Set	1						
2	SS 316 Medium Pressure, spark resistance construction Direct Driven Centrifugal Blowers (For 1705 cfm @ 40mm WG Static pressure) along with Motor of 1.5KW /4P(2HP/4P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application for SS Blower. Terminal box should be on top. including suitable clamp adapter, Electro galvanized stand and fasteners like bolts, nuts and washers and complete accessories. with proper drain hole for wash down	Nos.	1						
2.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	4						
2.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	4						
2.3	M10x100 pin type anchor fasteners	Nos.	4						
2.4	25x25x14g thk SS Bird mesh for dia 200mm Bypass end connection	Nos.	1						
2.5	SS316 Weather cowl Dia 250mm, (0.8 Sqmts).	Nos.	1						
2.6	Stack support for SS Blower Model, (Kg:- 65 Kgs).	Nos.	1						
2.7	Motor Guard with accessories for 2HP/4P	Set	1						
F	VARIABLE FREQUENCY DRIVE								
1	Variable Frequency Drives of following capacity								
1.1	Variable Frequency Drive-1.1 KW for Fume Hood Exhaust blower 1	No	1						
1.2	Variable Frequency Drive-1.5 KW for Fume Hood Exhaust blower 7	No	1						
G	SS DUCTING AND ACCESSORIES FOR FUME HOOD EXHAUST								

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
1	SS-316 with 22G (0.8mm) Ducting completely with welded joints, including bends and tees and supporting system	Sq.mt.	15						
2	SS-316 with 22G dampers of size 12" dia.single leaf cylindrical butterfly damper manually operated for the Fumehood	No.	1						
3	SS-316 with 22G dampers of size 8" dia.single leaf cylindrical butterfly damper manually operated for the Fumehood	No.	1						
4	Washdown system with complete piping with SS-316 of 2" dia, along with all fittings, nozzles..etc for PERCHLORIC HOOD with 0.5Hp pump to circulate water inside the duct.	No	1						
5	SS-304 with 22G (0.8mm) Ducting including with all flanges, bends, tees, bolts, gaskets and supporting system	Sq.mt.	30						
6	SS-304 with 22G dampers of size 12" dia.single leaf cylindrical butterfly damper manually operated for the Fumehood	No.	1						
7	SS-304 with 22G dampers of size 8" dia.single leaf cylindrical butterfly damper manually operated for the Fumehood	No.	1						
8	Fume Hood base cabinet ducting with accessories	Sets	2						
8.1	2" SS304 Flexible Hose	Rmts	4						
8.2	Dia 2"- 90° Elbow with both the end Male threading	Nos.	4						
8.3	Hose connector Tee Joint	Nos	2						
8.4	2" Chuck Nut	Nos.	3						
8.5	2"SS Hose Nipple or Hose Collar (IT) with one end Female threading	Nos.	4						
8.6	3" Hose Clips	Nos.	12						
H	MS CENTRIFUGAL BLOWER & ACCESSORIES								

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

SI. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
1	Medium Pressure Direct Driven MS Centrifugal Blowers (For 220,220 cfm @ 45,45 mm WG Static pressure) including suitable clamp adapter, Electro galvanized stand and fasteners like bolts, nuts and washers , base frame, vibration isolators, for Centrifugal Blowers for MS-Blower model. Motor 0.55 KW /4P(0.75 HP/4P) TEFC B5 / Flange mounted 3phase 50Hz, 415Volts IP-55 Protection Class F. For outdoor application for MS-125 Terminal box should be on top side.	Nos.	2						
1.1	Rubber Pads 150x150x12 Thk. Anti vibration, serrated rubber pads	Nos.	8						
1.2	G1 M8x50 bolts with nuts & washer (Motor and Blower pedestal)	Nos.	8						
1.3	M10x100 pin type anchor fasteners	Nos.	8						
1.4	25x25x14g thk GI Bird mesh for dia 100mm Bypass end connection	No	2						
1.5	GSS Weather cowl Dia 150mm , (0.45 Sqmts). Moc:- GI 22 guage	No.	2						
1.6	Stack support for MS-Blower Model, (Weight :- 40 Kgs).	No.	2						
1.7	Motor Guard with accessories 0.75HP/4P	No.	2						
I	VARIABLE FREQUENCY DRIVE								
1	Variable Frequency Drives of following capacity								
1.1	Variable Frequency Drive- 0.55 KW for Fume Hood Exhaust blower 5 & 9	2	Nos.						
J	GI DUCTING & ACCESSORIES								
1	GI 22 guage Ducting including flanges, bends, tees, bolts, gasket and supporting system	30	Sq.mt.						
2	GI 22 Guage dampers 6" dia.single leaf cylindrical butterfly damper manually operated for the Spot Extractor	2	No						
3	GI dampers 4" dia.single leaf cylindrical butterfly damper with both side flanges manually operated for the Spot Extractor Bypass cluster 5 & 9	2	No.						
TOTAL OF BILL-III									

Note:

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 3

BOQ FOR EXHAUST SYSTEM AND ACCESSORIES

Sl. NO	DESCRIPTION	UNIT	QTY	Unit Price	Installation	TAXES			TOTAL
						CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	

- 1 The civil foundation for the blower has to be provided by the Client.
- 2 The starter & control panel (MCC Panel) for the exhaust blower has to be provided by the Client.
- 3 All communications and power cablings has to be provided by the client.
- 4 The make of the exhaust blower is Colasit, Switzerland.
- 5 PP/FRP Ducting material over and above will be billed seperately @ actuals.

Considerations:

- 1 FFL to FFL height -3750 mm
- 2 False ceiling height - NA
- 3 Designed direct driven fan with VFD.
- 4 All base cabinets will be connected to the Fume Hood Exhaust Blower.
- 5 Considered Labs are in Ground, First, Second & Third floor.
- 6 Blower and scrubber is placed on terrace which is next to third floor.

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
GROUND FLOOR											
Gas bank and changeover panel											
1	Unistrut Frame 1+1 Cyl. Manifold	Indian	GI	Set	3						
2	Cylinder Bracket with chain	Indian	M.S.	No.	12						
3	Nut Bullnose	Indian	SS 316	No.	6						
4	Check Valve 1/4"	Swagelok	SS 316	No.	6						
5	Hose 1/4" NPTF x 1/4" NPTF	Swagelok/GCE	SS 316	No.	6						
6	Semi Autochange over panel (Inlet Pressure 150 Bar & Outlet Pressure 0 to 7 Bar, PRV)	Swagelok/GCE	SS 316	No.	3						
7	Connector for Semi Autochange over panel	Swagelok	SS 316	No.	9						
8	Shut Off Valve 1/2" OD	Swagelok	SS 316	No.	1						
9	Shut Off Valve 1/4" OD	Swagelok	SS 316	No.	2						
10	FBA 1/4" with Necessary Connector	Messer	Brass	No.	1						
Lab piping and accessories											
11	Source Connector For CA	Indian	SS 304	No.	1						
12	Source Connector For VA	Indian	SS 304	No.	1						
13	Source Connector For SW	Indian	SS 304	No.	1						
14	Source Connector For RW	Indian	SS 304	No.	1						
15	Ball Valve 1 1/2" OD flanged end	Indian	SS 304	No.	1						
16	Flanges 1 1/2" OD	Indian	SS 304	No.	2						
17	Ball Valve 1" OD flanged end	Indian	SS 304	No.	4						
18	Flanges 1" OD	Indian	SS 304	No.	8						
19	Ball Valve 1/2" OD	Indian	SS 304	No.	43						
20	Ball Valve 1/4" OD	Indian	SS 304	No.	15						
21	Y Strainer 1 1/2"	Indian	SS 304	No.	1						
22	Flanges 1 1/2" OD For Y Strainer	Indian	SS 304	No.	2						
23	Y Strainer 1"	Indian	SS 304	No.	1						
24	Flanges 1" OD For Y Strainer	Indian	SS 304	No.	2						
25	Vacuum Gauge	Indian	SS 304	No.	3						
26	Tee 1/2" x 1/4" NPTF x 1/2" for Vacuum Gauge	Indian	SS 304	No.	3						
27	Regulator 1/4"(Inlet Pressure depending upon Source Pressure & Outlet Pressure 0 to 7 bar,)	Indian	SS 304	No.	1						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
28	Line Regulator 1/4" END (Inlet Pressure 7 bar & Outlet Pressure 3 bar)	Indian	SS 304	No.	9						
29	Connector for Regulator	Indian	SS 304	No.	20						
30	Line Pressure Gauge	Indian	SS 304	No.	12						
31	Tee 1 1/2" x 1/2" NPTF x 1 1/2" for Line Pressure Gauge	Indian	SS 304	No.	1						
32	Tee 1" x 1/2" NPTF x 1" for Line Pressure Gauge	Indian	SS 304	No.	4						
33	Tee 1/2" x 1/2" NPTF x 1/2" for Line Pressure Gauge	Indian	SS 304	No.	7						
34	Tee 1 1/2" x 1 1/2" x 1 1/2" OD SW	Indian	SS 304	No.	1						
35	Tee 1" x 1" x 1" OD OW	Indian	SS 304	No.	3						
36	Tee 1" x 1/2" x 1" OD OW	Indian	SS 304	No.	27						
37	Tee 1/2" x 1/2" x 1/2" OD OW	Indian	SS 304	No.	15						
38	Tee 1/2" x 1/4" x 1/2" OD OW	Indian	SS 304	No.	2						
39	Tee 1/4" x 1/4" x 1/4" OD OW	Indian	SS 304	No.	2						
40	Reducer 1 1/2" x 1"OD	Indian	SS 304	No.	2						
41	Reducer 1" x 1/2"OD	Indian	SS 304	No.	5						
42	Reducer 1/2" x 1/4" OW	Indian	SS 304	No.	2						
43	FH Connector - 3/8" NPTM x 1/4" OD	Indian	SS 304	No.	4						
44	FH Connector - 3/8" NPTM x 1/2" OD	Indian	SS 304	No.	4						
45	Bench Connector 1/2" BSPF x 1/4" OD	Indian	SS 304	No.	1						
46	Equipment Connector	Indian	SS 304	No.	29						
47	Sink Connector 1/2" BSPF x 1/2" OD	Indian	SS 304	No.	9						
48	Eye Wash Connector 3/8" BSPF x 1/2" OD	Indian	SS 304	No.	9						
49	Shower Connector	Indian	SS 304	No.	1						
50	Elbow 1 1/2" OD SW	Indian	SS 304	No.	14						
51	Elbow 1" OD	Indian	SS 304	No.	64						
52	Tube 1 1/2" OD	Indian	SS 304	Mtr.	35						
53	Tube 1" OD	Indian	SS 304	Mtr.	191						
54	Tube 1/2" OD	Indian	SS 304	Mtr.	301						
55	Tube 1/4" OD	Indian	SS 304	Mtr.	304						
56	Profile Powder Coated	Indian	Aluminium	Mtr.	46						
57	Clamp 1 1/2"	Indian	PP	No.	35						
58	Clamp 1"	Indian	PP	No.	192						
59	Clamp 1/2"	Indian	PP	No.	301						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
60	Clamp 1/4" OD	Indian	PP	No.	304						
61	Tagging	Indian	Acrylic	No.	416						
62	Unistrut Support	Indian	GI	No.	135						
Gas Detection System											
1	GMS panel	Indian	NA	Set	1						
2	P10 Gas Detector	Indian	NA	No.	2						
3	Detector Mounting Bracket	Indian	MS	No.	2						
4	Cable	Indian	Copper	Per Mtr.	1						
5	Cable Tray with require support	Indian	GI	Per Mtr.	1						
6	Conduit for Cable	Indian	PVC	Each	1						
FIRST FLOOR											
Gas bank and changeover panel											
1	Unistrut Frame 1+1 Cyl. Manifold	Indian	GI	Set	6						
2	Cylinder Bracket with chain	Indian	M.S.	No.	24						
3	Nut Bullnose	Swagelok	SS 316	No.	12						
4	Check Valve 1/4"	Swagelok	SS 316	No.	12						
5	Co2 Heater	Niche Gas	Brass	No.	2						
6	Hose 1/4" NPTF x 1/4" NPTF	Swagelok/GCE	SS 316	No.	12						
7	Semi Autochange over panel (Inlet Pressure 150 Bar & Outlet Pressure 0 to 7 Bar, PRV)	GCE/Swagelok	SS 316	No.	6						
8	Connector for Semi Autochage over panel	Swagelok	SS 316	No.	18						
9	Shut Off Valve 1/2" OD	Swagelok	SS 316	No.	6						
10	Shut Off Valve 1/4" OD	Swagelok	SS 316	No.	0						
11	FBA 1/2" with Necessary Connector	Messer	Brass	No.	2						
Lab piping and accesseries											
12	Source Connector For RW	Indian	SS 304	No.	1						
13	Ball Valve 1" OD flanged end	Indian	SS 304	No.	1						
14	Flanges 1" OD	Indian	SS 304	No.	2						
15	Ball Valve 1/2" OD	Indian	SS 304	No.	10						
16	Ball Valve 1/4" OD	Indian	SS 304	No.	69						
17	Y Strainer 1"	Indian	SS 304	No.	1						
18	Flanges 1" OD For Y Strainer	Indian	SS 304	No.	2						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
19	Needle Valve 1/4" OD	Indian	SS 304	No.	7						
20	Line Regulator 1/2" END (Inlet Pressure 7 bar & Outlet Pressure 3 bar)	Indian	SS 304	No.	5						
21	Line Regulator 1/4" END (Inlet Pressure 7 bar & Outlet Pressure 3 bar)	Indian	SS 304	No.	20						
22	Purification Panel with Necessary Connector	Indian	SS 304	No.	4						
23	Line Pressure Gauge	Indian	SS 304	No.	3						
24	Tee 1" x 1/2" NPTF x 1" for Line Pressure Gauge	Indian	SS 304	No.	1						
25	Tee 1/2" x 1/4" NPTF x 1/2" for Line Pressure Gauge	Indian	SS 304	No.	2						
26	Tee 1" x 1/2" x 1" OD OW	Indian	SS 304	No.	1						
27	Tee 1/2" x 1/2" x 1/2" OD OW	Indian	SS 304	No.	13						
28	Tee 1/2" x 1/4" x 1/2" OD OW	Indian	SS 304	No.	35						
29	Tee 1/4" x 1/4" x 1/4" OD OW	Indian	SS 304	No.	8						
30	Reducer 1" x 1/2"OD	Indian	SS 304	No.	1						
31	Reducer 1/2" x 1/4" OW	Indian	SS 304	No.	10						
32	Bench Connector 1/2" BSPF x 1/4" OD	Indian	SS 304	No.	19						
33	GC Connector	Indian	SS 304	No.	7						
34	Equipment Connector	Indian	SS 304	No.	28						
35	Sink Connector 1/2" BSPF x 1/2" OD	Indian	SS 304	No.	2						
36	Eye Wash Connector 3/8" BSPF x 1/2" OD	Indian	SS 304	No.	2						
37	Elbow 1" OD OW	Indian	SS 304	No.	10						
38	Tube 1" OD	Indian	SS 304	Mtr.	46						
39	Tube 1/2" OD	Indian	SS 304	Mtr.	373						
40	Tube 1/4" OD	Indian	SS 304	Mtr.	814						
41	Profile Powder Coated	Indian	Aluminium	Mtr.	60						
42	Clamp 1"	Indian	PP	No.	46						
43	Clamp 1/2"	Indian	PP	No.	679						
44	Clamp 1/4" OD	Indian	PP	No.	666						
45	Tagging	Indian	Acrylic	No.	695.5						
46	Unistrut Support	Indian	GI	No.	125						
Gas Detection System											
1	GMS panel	Indian	NA	Set	1						
2	H2 Gas Detector	Indian	NA	No.	6						
3	Detector Mounting Bracket	Indian	MS	No.	6						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
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BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
4	Cable	Indian	Copper	Per Mtr.	1						
5	Cable Tray with require support	Indian	GI	Per Mtr.	1						
6	Conduit for Cable	Indian	PVC	Per Mtr.	1						
SECOND FLOOR											
Gas bank and changeover panel											
1	Unistrut Frame 1+1 Cyl. Manifold	Indian	GI	Set	4						
2	Cylinder Bracket with chain	Indian	M.S.	No.	16						
3	Nut Bullnose	Indian	SS 316	No.	8						
4	Check Valve 1/4"	Swagelok	SS 316	No.	8						
5	Hose 1/4" NPTF x 1/4" NPTF	GCE/Swagelok	SS 316	No.	8						
6	Semi Autochange over panel (Inlet Pressure 150 Bar & Outlet Pressure 0 to 7 Bar, PRV)	GCE/Swagelok	SS 316	No.	4						
7	Connector for Semi Autochage over panel	Swagelok	SS 316	No.	12						
8	Shut Off Valve 1/2" OD	Swagelok	SS 316	No.	1						
9	Shut Off Valve 1/4" OD	Swagelok	SS 316	No.	3						
10	FBA 1/4" with Necessary Connector	Messer	Brass	No.	1						
Lab piping and accesseries											
11	Source Connector For CA	Indian	SS 304	No.	1						
12	Source Connector For VA	Indian	SS 304	No.	1						
13	Source Connector For RW	Indian	SS 304	No.	1						
14	Ball Valve 1 1/2" OD flanged end	Indian	SS 304	No.	1						
15	Flanges 1 1/2" OD	Indian	SS 304	No.	2						
16	Ball Valve 1" OD flanged end	Indian	SS 304	No.	4						
17	Flanges 1" OD	Indian	SS 304	No.	8						
18	Ball Valve 1/2" OD	Indian	SS 304	No.	29						
19	Ball Valve 1/4" OD	Indian	SS 304	No.	16						
20	Needle Valve 1/4" OD	Indian	SS 304	No.	4						
21	Y Strainer 1 1/2"	Indian	SS 304	No.	1						
22	Flanges 1 1/2" OD For Y Strainer	Indian	SS 304	No.	2						
23	Vacuum Gauge	Indian	SS 304	No.	5						
24	Tee 1" x 1/2" NPTF x 1" for Vacuum Gauge	Indian	SS 304	No.	1						
25	Tee 1/2" x 1/4" NPTF x 1/2" for Vacuum Gauge	Indian	SS 304	No.	4						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
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BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
26	Regulator 1/2"(Inlet Pressure depending upon Source Pressure & Outlet Pressure 0 to 7 bar.)	Indian	SS 304	No.	1						
27	Line Regulator 1/4" END (Inlet Pressure 7 bar & Outlet Pressure 3 bar)	Indian	SS 304	No.	12						
28	Connector for Regulator	Indian	SS 304	No.	26						
29	Purification Panel with Necessary Connector	Indian	SS 304	No.	4						
30	Line Pressure Gauge	Indian	SS 304	No.	9						
31	Tee 1 1/2" x 1/2" NPTF x 1 1/2" for Line Pressure Gauge	Indian	SS 304	No.	1						
32	Tee 1" x 1/2" NPTF x 1" for Line Pressure Gauge	Indian	SS 304	No.	3						
33	Tee 1/2" x 1/4" NPTF x 1/2" for Line Pressure Gauge	Indian	SS 304	No.	5						
34	Tee 1 1/2" x 1" x 1 1/2" OD	Indian	SS 304	No.	1						
35	Tee 1" x 1" x 1" OD OW	Indian	SS 304	No.	2						
36	Tee 1" x 1/2" x 1" OD OW	Indian	SS 304	No.	13						
37	Tee 1/2" x 1/2" x 1/2" OD OW	Indian	SS 304	No.	26						
38	Tee 1/2" x 1/4" x 1/2" OD OW	Indian	SS 304	No.	5						
39	Tee 1/4" x 1/4" x 1/4" OD OW	Indian	SS 304	No.	7						
40	Reducer 1 1/2" x 1"OD	Indian	SS 304	No.	1						
41	Reducer 1" x 1/2"OD	Indian	SS 304	No.	4						
42	Reducer 1/2" x 1/4" OW	Indian	SS 304	No.	5						
43	FH Connector - 3/8" NPTM x 1/4" OD	Indian	SS 304	No.	12						
44	FH Connector - 3/8" NPTM x 1/2" OD	Indian	SS 304	No.	12						
45	GC Connector	Indian	SS 304	No.	4						
46	Equipment Connector	Indian	SS 304	No.	9						
47	Sink Connector 1/2" BSPF x 1/2" OD	Indian	SS 304	No.	10						
48	Eye Wash Connector 3/8" BSPF x 1/2" OD	Indian	SS 304	No.	10						
49	Shower Connector	Indian	SS 304	No.	1						
50	Elbow 1 1/2" OD SW	Indian	SS 304	No.	6						
51	Elbow 1" OD	Indian	SS 304	No.	56						
52	Tube 1 1/2" OD	Indian	SS 304	Mtr.	15						
53	Tube 1" OD	Indian	SS 304	Mtr.	175						
54	Tube 1/2" OD	Indian	SS 304	Mtr.	496						
55	Tube 1/4" OD	Indian	SS 304	Mtr.	452						
56	Profile Powder Coated	Indian	Aluminium	Mtr.	59						

**NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT,
CHENNAI**

BILL NO. 4

BOQ FOR GAS DISTRIBUTION SYSTEM AND ACCESSORIES

SL No	Description	Make	MOC	Unit	Qty	UNIT PRICE	Installation	TAXES			TOTAL
								CUSTOMS / EXCISE DUTY	VAT	SERVICE TAX	
57	Clamp 1 1/2"	Indian	PP	No.	15						
58	Clamp 1"	Indian	PP	No.	175						
59	Clamp 1/2"	Indian	PP	No.	496						
60	Clamp 1/4" OD	Indian	PP	No.	452						
61	Tagging	Indian	Acrylic	No.	569						
62	Unistrut Support	Indian	GI	No.	148						
Gas Detection System											
1	GMS panel	Indian	NA	Set	1						
2	H2 Gas Detector	Indian	NA	No.	2						
3	Detector Mounting Bracket	Indian	MS	No.	2						
4	Cable	Indian	Copper	Per Mtr.	1						
5	Cable Tray with require support	Indian	GI	Per Mtr.	1						
6	Conduit for Cable	Indian	PVC	Per Mtr.	1						
TOTAL OF BILL-IV											

Note:

- 1 Separate Gas bank is to be considered for all floors.
- 2 Utility Source to be considered at same floor.
- 3 User point is based on Furniture layout.
- 4 MOC- SS 316 & SS304