

SCHEDULE OF EQUIPMENTS AND BILL OF QUANTITY					
MOTION STIMULATOR & ENTRANCE PLAZA					
NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	Full duty Job				
1.a	VRV Outdoor units				
	Supply at site with full cover insurance during facory to site, fire or any other contingencies				
	12.8 TR (16 HP)	Each	1		
b	Testing ,commissioning of the units, Treatment of exposed piping with weather proof mechanical paint & G.I Saddles & stand for piping etc	Each	1		
SUBTOTAL					
2	VRV Indoor units with filters				
	Supply at site with full cover insurance during factory to site, fire or any other contingencies				
a	7 TR ceiling suspended ductable Indoor unit	Each	2		

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
b	Testing ,commissioning of the indoor units at site	Each	2		
c	cordless remotes	Each	2		
c	PACKAGE UNIT / SPLIT UNITS				
	Supply, Installation testing and commissioning of split/ Package air cooled Air-conditioners each complete with scroll compressor, air cooled condensor, GSS casing, filters, cooling coils, fan motors, copper refrigerant piping (insulated) length as per drawing maximum upto 15 mts, control wiring, refrigerant controls and accessories, including MICRO-PROCESSOR CONTROL with indication lamps for the operation of the system with thermostat fixed in the respective rooms to adjust the temperature according to the equipments requirements with Micro- processor control panel for each machine. Tenderes to elaborate the features of Micro- processor panel. GI painted frame works for outdoor units & making good of civil work's				
	1.5 TR Hiwall unit - for Entrance Plaza	Each	1		
	SUBTOTAL				
3	PIPING				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
a	Refrigerant piping with 19mm thick nitrile rubber insulation. (Liquid & discharge line) including refnet joints, control cabling between indoor & out door units	Rm.	60		
b	Drain water piping				
	Supply and fixing in positionn of condensate drain water & indoor unit drain to the floor trap piping with 9mm thick nitrile rubber insulation and with necessary fittings like elbows, tees and reducers etc. Openings as good as same.				
	25mm PVC	Rm.	20		
SUBTOTAL					
4.a	SHEET METAL WORK				
	Supply, fabricate, handle and erect factory fabricated GSS ducting as per drawing, complete with all fittings such as tee bends, special off-chutes, turning vanes, splitter dampers, ins.doors, transformation pieces slip on flanges etc. as reqd. as per IS 655 including suspension and supporting arrangement for plenums, ducts, complete as reqd. and as per specs. wall opening as good as same				
i	0.63mm GSS ducting in sq.m.	Sq.m	100		

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
ii	0.80mm GSS ducting in sq.m.	Sq.m	10		
b	GRILLES & DIFFUSERS				
	Supply and fix the following grilles and diffusers as per specifications. Machine made, powder coated, supply and return air grilles and diffusers of design to be approved <material : Al>				
i	supply air grille with vcd	Sq.m.	1.3		
ii	return air grille w/o vcd	Sq.m.	2.8		
c	Fresh air damper with louvers & control lever for VRV unit./split	Each	2		
d	DUCT INSULATION & LINING				
	Thermal insulation				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	supply & fixing of 9 mm thick class o nitrile rubber insulation with adhesive as per the recommendation of the manufacture with density 45-55kg/m3	Sq.m.	90		
e	Acoustic insulation				
	supply & fixing of 10 mm thick acoustic nitrile rubber insulation with adhesive as per the recommendation of the manufacture with density 140-180kg/m3	sq.m	20		
f	DUCT DAMPERS				
	Supply, fix, balance, and commission louvre type smooth supply air duct dampers made of extruded aluminium linkage, lever, fixing arrangement etc.complete brass bushings	sq.m	1		
g	FIRE DAMPERS.				
	Supply and fix 1 1/2 hour fire rated fire dampers air ducts (main line) with fusible link & microswitch to shut of corresponding Ahu (including control cable.)	sq.m	1.5		
SUBTOTAL					

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
5.a	ELECTRICAL WORK				
	Supply, installation testing and				
	commissioning of extensible type, cubical				
	panel comprising of switch fuse units, busbar,				
	cable alley, fabricated from 20 mm thick				
	CRCA sheets duly rust inhibited and stove				
	enamel painted complete with heavy duty				
	rubber gaskets, hinged compartment doors,				
	removable gland plate for cable entry, sheet				
	steel or 5mm thick compartment segregation,				
	name plate, interconnection busbar, mounting				
	channels etc.				
	CPRI Approved				
	a) INCOMING -- 1 No. MCCB				
	b) BUSBARS				
	c) 3 phase and neutral Aluminium bus bars with				
	bus supports in suitable bus chamber.				
	d) METERING ammeter with CT's and selector switch				
	0-500 volts voltmeter with selector switch and fuses.				
	0- 160 Amp ammeter with CT's and selector switch.				
	e) 1 set R.Y.B lmps with fuses.				
	f) OUTGOING				
	TPN MCCB/ MPCB for ODU's/ IDU DB's				
	1 No. earth bus(CU) throughout the panel with				
	earthing bolts				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	VRV Panel 1 with above specifications and as per drawings - Total HP - 21.5 HP	Each	1		
b	THREE PHASE DB WITH SINGLE PHASE OUTLET FOR INDOOR UNITS				
	DB -2				
	4 Way three phase db with single phase outlet for indoor units with above specifications & as per drawings - TOTAL HP – 2.5 HP - GROUND FLOOR	Each	1		
c	ISOLATORS.				
i	3 Phase 40A	Each	3		
ii	I-Phase 40A	Each	3		
d	CABLES				
	Supply of 1.1 Kv PVC insulated PVC sheathed steel armoured cables of approved				
	make and laying and fixing of PVC insulated				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	PVC sheathed cable of 1.1Kv grade on				
	surface/ as required and making				
	end termination with brass compression gland				
	for PVC sheathed cable of 1.1Kv grade and				
	fabricating and installing MS cable trays				
	including horizontal and vertical bends,				
	reducers, tees, cross members and other				
	accessories as required and duly suspended				
	from ceiling with MS suspenders including				
	painting etc. (IN R.M.)				
i	3.5 core 6 sq.mm Al. cables	Rm.	50		
ii	3 core 4 sq.mm Al. cables.	Rm.	30		
iii	3 core 2.5 sq.mm cu cables.	Rm.	50		

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
e	Cale trayMS perforated cable tray painted with powder coating 300 X 50 X 1.6 mm	Rm.	130		
f	EARTHING				
	Supply and laying earthing for various equipments and motors.				
	10 SWG copper wire	Rm.	100		
SUBTOTAL					
6	VENTILATION SYSTEM				
	supply, installation, testing and commissioning Direct driven axial flow fans suitable for mounting on wall or duct in standard galvanized/ powder coated steel construction with required rating, single motor and flexible connection to connect with ducting / plenum.				
a	EXHAUST FANS				
i	750 cfm exhaust fans	Each	1		
ii	600 cfm exhaust fans	Each	1		

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
b	SHEET METAL WORK				
	Supply, fabricate, handle and erect GSS Factory Fabricated rectangular duct as per drawings. complete with all fittings such as tee bends, special off-chutes, turning vanes, splitter dampers, ins.doors, transformation pieces etc. as reqd. as per IS 655 including suspension and supporting arrangement for plenums, complete as reqd. and as per specs.(only hi-tech supports shall be used) ducts, joining with easy slip on flange, gasket, corner piece, cleat etc wall opening as good as same				
	0.63mm GSS ducting in sq.m.	Sqm	25		
c	Flexible Ducting				
	Supply, Fabrication, installation and testing of the flexible ducting, complete with connecting rings, duct supports, Plenum box etc as per standards and specification				
	100 dia	Rm	20		
d	GRILLES & DIFFUSERS				
	Supply and fix the following grilles and				
	diffusers as per specifications				
	(material : Al)				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	Return air grille/diffuser with vcd	Sqm	0.3		
	SUB TOTAL				
7	ADDITIONAL WORKS				
a	Exposed roof insulation				
	supply & fixing of 13 mm thick class o nitrile rubber insulation with adhesive as per the recommendation of the manufacture with density 45-55kg/m3 for terrace floor	Sqm	130		
b	ISOWALL BOXING				
	Fixing ISOWALL 50 mm thick EPS, both side GI coated sheet panels for wall and ceiling making retturn air boxing with necessary angels, sealant etc.	Sqm	5		
	SUBTOTAL				
8	AMC				
	Annual maintenance contract charges including				
	spares , gas and consumbles for the above plant				
	per year for 5 years on per ton basis and				
	percentage increase every year for 4 years after				

NO	ITEM DESCRIPTION	UNIT	QTY	RATE (In figues& words)	AMOUNT (In Rs.)
	warrenty period of 1 year. The frequency of				
	servicing shall be one in 3 months every year for				
	routine service and immediate on break down calls.				
	1st year		14.3 TR		
	2nd year		14.3 TR		
	3rd year		14.3 TR		
	4th year		14.3 TR		
	5th year		14.3 TR		
TOTAL					