

Schedule of Work- BSL2

S.No	Description	Unit	Qty	Rate (Rs)	Amount (Rs)	Approved Make List
1	Repairing & Structural construction work including application of Roof top Rubber weather proof coating with FRP net as required for dismantling and establishing the NEW BSL 2 lab facility as per site requirement, including HVAC and Electrical installations foundation support. Interior and Exterior weather proof painting and other necessari activities needs as per site condition.	Set	1			
2	Air cooled Condensing Unit Twin Circuit (2 x 5.5 TR) Condensing Unit – Self supported (R22 Ref Gas) - 11 TR complete with accessories and FDN	Set	1			Bluestar / Voltas / Hitachi
2.1	Refrigerant Copper Piping system including necessary valves & fittings including thermal Insulation	Set	1			
3	Air Handling Units					
3.1	Modular Outdoor type Double skin Air Handling Units of 43+/-2 mm thick PUF injected panels with 24 gauge GI inner skin and pre-coated GI outer skin all as per specification including fan with TEFC motor. AHU shall have ; RA VCD - Gear Operated, FA Mixing Section suitable for 30% FA, with pre filter (EU-3), Fine Filter section (EU-9), HEPA Filter section (EU-13),coil section with CHW 8 Row coil, blower section with DIDW centrifugal fan having static pressure of 140 mm/Wg - With TWIN MOTOR ARRGT.					
3.2	AHU - 1 : Recirculation AHU with supply air quantity 4500 cfm at 140 mmWG Static pressure (TWIN MOTOR)	No	1			Flakt/Edgetech/Citizen
4	BSC - A2 Unit Exhaust Air System	No	2			Esco/Labconco
4.1	LAF / BSC Exhaust air On-line Centrifugal SISW Fan cap. 2500 cfm/80 mm static with direct driven motor and vibration isolation mounting suitable for 2 Nos BSC of size 4 Ft. Class-II/A-2	No	2			Humidine / Nicotra
5	Air Distribution System					
5.1	GI Ducting complete with MS painted flanges, all joints sealed with RTD silicon sealant with MS painted supports as per IS-266 with Zinc deposition 120gms/sqm.					
5.2	GSS-24 Swg ducting including accessories and Support arrangement	Sqmt.	75			Tata/Jindal/Sail
5.3	GSS-22 Swg ducting including accessories and Support arrangement	Sqmt.	40			Tata/Jindal/Sail
5.4	Aluminium Gear Operated volume control dampers for AHU, ducting and exhaust fans	Sqmt.	2			Carrier/Continental
5.5	Duct Insulation with 19 mm thick aluminium foil faced ARMAFLEX and all joints shall be provided with 2" aluminium tape.	Sqmt.	125			Armaflex/Vidoflex
5.6	Fuseable link type UL 99 rated Fire dampers at AHUs & EAUs (Supply air and Exhaust air unit)	No	2			Caryair/Continental/Waves
5.7	Extruded aluminium powder coated Supply/ Exhaust Air Diffusers with Black Matt Finish VCD	Sqmt.	2			Caryair/Continental/Waves
Sub Total for HVAC Section:					-	
6.0	Electricals					
6.1	M C C Panel - Main Electrical Panel, IP-55, comprising of - MCCB, DOL Starter, Digital Volt meters, indication lamps and VFD enclosure with ventilation fan and protection MCCB etc.	No	1			ISI

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6.2	Electrical power Cabling 1.1 KV grade PVC/ XLPE insulated aluminium/ copper conductor armoured/ Unarmoured cables on cable tray.(Copper / Aluminium armoured / Flexible cables), control cables (copper), (for plug points and Poewr Sockets) - Power cabling from Main MCC to BSL 3 lab distribution system and HVAC equipment termination considered. <u>INCOMING POWER CABLING NOT INCLUDED</u>	Lot	1			Finolex/Polycab/National
6.3	Variable Frequency Drive (VFD) ACS 510/550 with IP 55 protection and enclosure & Exhaust air ventilation fan - ABB	Set	2			ABB
6.4	Supplying all the fitting materials, cutting, peeling, terminating and connecting cable with cable gland and crimped aluminium lugs in respective Feeders, Equipment's	Job	1			
7	Power sockets & Lighting arrangement					
7.1	Cleanroom Light fixtures : BSL lab compatible, 'O' leak, fitted with 5 mm Thk Toughened Glass, 2 x 36 watts CFL top opening type with electronic ballast with; Housing : CRCA powder coated frame-less Lens: To provide Toughened glass with 3 M adhesive tape (to be fixed inside the opening provided in 60 mm ceiling) Reflector : Preanodized imported aluminium Ballast : Philips electronic with pf>0.98 & THD < 10 %	Nos	15			Optico/Superlite/Equev.
Sub Total for selective Electrical Section:						-
8	BSL 2 lab interior & clean room					
8.1	Double skin powder coated GI sheet, PUF/EP infilled, Clean room Wall & Ceiling system 40 mm thick , including necessary utility cut-outs duly concealed, as per specification , including necessary utility cut-outs duly concealed, as per specification	m2	215			GMP/Fabtech/Equv.
8.2	Polyvinyl Wonderfloor , Royal flooring made from polyvinyl chloride (PVC or Vinyl) 2.5 mm Thk. All joints fusion welded (Roll sections should be used in-place of tile for lesser joints)	m2	80			Deco/Wonderfloor / RMG
8.3	R-45 PVC progressive floor to wall coving suitable for Vinyl floor finish	RMT	50			Wonderfloor / RMG
8.4	Wall to ceiling and Wall to wall coving with Extruded aluminium powder coated (R= 42) clutch-coving with silicon finish	RMT	55			Fabtech/Cleanroom Systems/Equv.
9	Glass - Aluminium Double Leaf Doors 1300 (W) x 2100mm (H) as per specification with door closure, 'D' handle, Push plate and kick plate along with 480x750 double glazing view pane	Nos	1			Fabtech/Cleanroom Systems/Equv.
9.1	Clean room compatible Double Leaf Doors 1200 (W) x 2100mm (H) as per specification with door closure, SS-'D' handle, Push plate and kick plate along with 480x750 double glazing view pane & Drop-seal	Nos	3			Fabtech/Cleanroom Systems/Equv.
10	Double glazing windows with 5 mm thk toughened glass fitted (900x1000).	Nos	3			Fabtech/Cleanroom Systems/Equv.
Sub Total for Lab Interior Section:						-

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11	Automation & Access Control system					
11.1	Programmable Logic Controller , View port operator Terminal	Set	1			Alarton/Honeywell/Delta
11.1	DDC panel Enclosure Powder coated wall type with Transformer, MCB &					
11.2	Duct mounted Air velocity sensor					
11.3	Exhaust duct Temperature sensors					
12	Access control system with Electromagnetic Strike lock unit + Egress Button and 10 nos Access Proximity cards	Set	1			Alarton/Honeywell
13	FIRE Detection and Alarm System & Communication cabling with termination.	Job	1			Finolex/National
14	CCTV Surveillance System	job	4			
Sub Total for Automation Section:					-	
15	CYLINDRICAL AUTOCLAVE CAPACITY 80-100LTS	JOB	1			NAT STEEL
16	Bsl 2 lab Testing, Validation & SOP					
16.1	Validation, Testing and Documentation of BSL 2 Lab Facility	Lot	1			
17	Comprehensive Maintenance and Operation of the BSL 2 lab facility for 12 months after successful completion and handing over of the facility.	Set	1			
Validation & Testing Total:					-	
Grand Total						
NOTE: TAXES SHALL BE CHARGED EXTRA					-	