## **Financial Bid**

Name of Work: Supply, Installation, Testing and Commissioning Air Ducting Cum Air Conditioners

(Ductable type) and False Ceiling at Auditorium, Academic Building (4A5) at Central

**University of Rajasthan** 

NIT No. : CURAJ/R/F.123/2020/1543 dated 15.09.2020

## **SCHEDULE 'X'**

S. No.	Description of Item	Qty.	Unit	Rate (in Rs.)	Amount (in Rs.)
A	SUPPLY OF DUCTABLE AC:			Í	
1	Supply of 11.0 TR capacity Ductable Air conditioning units with inverter type Scroll Compressor with R 410 A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5. Each unit shall comprise of separate Indoor and outdoor unit.	4	nos		
В	INSTALLATION, TESTING AND COMMISSIONING:				
2	Installation, Testing and Commissioning of Ductable Air conditioning both Indoor & Outdoor units complete with all components, air cooled condenser, M. S. Epoxy Painted Stand for condensing unit with vibration isolators, grouting, for Bracket Type stand without railing & catwalk, Core cutting of hole's in beam or slab (only with specific approval from Engineer-In-Charge) & finishing same with provision of sleeves, Mounting arrangement for units comprising anchor fasteners, clits, support rods, vibration isolators, Epoxy painted MS angles/channel as per site requirements including charging of required quantity of refrigerant as reqd.  Supply, Installation, Testing and Commissioning of interconnecting refrigerant copper pipe suitable size as per manufacturer's norms, insulated with 19/13 mm thick closed cell electrometric nitrile rubber/foam tubular insulation between each set of indoor & outdoor units, including nitrogen pressure testing, all piping inside the room shall be properly	4	nos		
	fixed/supported with suitable size of clamp/ M.S. hanger and all external/ exposed to sun piping shall run in M.S. painted cable				
	tray etc. as required.	90	RMT		
3	Supply & Fixing of hard drawn 25/32mm dia. CPVC drain piping complete with fitting, supports, 6mm thick closed cell elastomeric insulation, as required as per directions of Engineer-in-charge.	75	RMT		
4	Supply & Fixing of microprocessor based communication copper cables cable of suitable size as per manufacturer's norms interconnecting outdoor to indoor, as per directions of Engineer-in-charge. Make: RR/Polycab/Havells/Finolex	100	RMT		
5	Supply, Fixing & Commissioning of control cable interconnecting the unit to remote power supply with all other accessories like mcb, power contactor, cable tray & isolator etc as required or as per directions of Engineer-in-charge. Make: RR/Polycab/Havells/Finolex	100	RMT		
	Sum of A+B (in Rs.) = 'X'				

S. No.	SCHEDULE 'Y' FOR DUCTING We Description of Item	ORK Qty.	Unit	Rate (in Rs.)	Amount (in Rs.)
С	DUCTING:			140.)	
1	Design, Supply & fixing GI sheet ducting in the incoming with canvas connections with Zip on machine outlet along with GI sheets volume control dampers including accessories like of hangers, supports, angles, fastners, black painted MS angles/rods for supporting, bracing & frames rubber gaskets, galvanized hardware, rivets, vanes, radius collars, cutting of duct collars to match the grille fixing details, black painting of ducts/				
	insulation/ false ceiling members visible through grille cutouts, close cell neoprene gaskets T&P etc. as below.				
	a) 0.80 mm (22 Gauge)	90	sq. mtrs.		
	b) 0.63 mm (24 Gauge)	180	_		
D		160	sq. mtrs.		
1	INSULATION: Supply & fixing of 25 mm thick Fiber glass with aluminium foil as acoustic insulation.	135	sq. mtrs.		
2 <b>E</b>	Supply and fixing of 25 mm thick Fiber glass with aluminium foil for the tail end ducts as thermal insulation.  SUPPLY & RETURN AIR ALUMINIUM GRILLS:	270	sq. mtrs.		
2	Design, Supply & fixing extruded aluminium powder coated supply air grill with fixed front louver and volume control dampers in the air duct. (Joints to be adjusted as per architectural requirements, random joints will not be permitted)  Design, Supply & fixing extruded aluminium powder coated return air grill with fixed front louver, without volume control	10	sq. mtrs.		
F	dampers in the air duct.(Joints to be adjusted as per architectural requirements, random joints will not be permitted)  FALSE CEILING:	10	sq. mtrs.		
1	Design, Supply and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance > 85%, Thermal conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round galvanized iron section of 0.33 mm thick (galvanized 120 gsm) comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as per specifications, drawings and as per directions of the Engineer-In-Charge.				

1.1	With 20 mm thick beveled tegular mineral fibre false ceiling tile			
	(NRC 0.7)	350	sq. mtrs.	
2	SITC of 30-50W. 2*2 Size Panel LED cool Day light suitable			
	for single phase, 220-240 V, 50Hz, AC Supply with minimum			
	02 years warranty as per IS & directions of Engineer-In-Charge	56	Nos	
	Sum of $C+D+E+F$ (in Rs.) ='Y'			
	Net Amount of X+Y (in Rs.) Incl. GST (in Figures)			
	Net Amount of X+Y (in Rs.) Incl. GST (In Words)			

Note: Quote rate inclusive of Cartage & all types of taxes such as GST.

Seal	& Signature of Bidder	•
Date		