

**UNIVERSITY OF KERALA
ENGINEERING UNIT**

**Tender schedule Air conditioning Works for Language Laboratory of Hindi
Department in ONV Memorial school of Indian Languages at Kariavattom Campus**

SL.NO	SPECIFICATION	QTY	UNIT	RATE	RATE IN WORDS	AMOUNT
1	od74974/2020_2021 : Supply, installation, testing and commissioning the following capacity of wall mounting, high energy efficient, single phase, inverter type, split air conditioner unit (IDU) having 5-star rating as per BEE, fitted with hermetically sealed rotary compressor (ODU) suitable for eco-friendly and energy efficient refrigerants R-32A / R-410A, conforming to IS: 1391 Part-2 1992 (with latest amendments except power consumption norms) suitable for operation on 230 V, 50 Hz AC supply and capable of performing functions such as cooling, dehumidifying, air circulating, filtering etc and having features of long distance piping flexibility, wide angle air flow, IDU noise level < 43 dB (A) and ODU noise level < 56 dB (A) as required. The condensing and evaporating coils should be made of copper tubes (100% copper) and a standard length of upto 3 metres of soft drawn bright annealed copper refrigerant pipes of suitable sizes should be supplied along with the AC unit for the function of suction and discharge and the copper pipes should be properly insulated with 10 mm thick closed cell Class O elastomeric nitrile rubberised foam sleeve insulation. A standard length of upto 3 metres of suitable size ISI marked flexible copper control cable for electrically connecting IDU and ODU of AC unit and microprocessor based wireless remote controller with required number of suitable batteries should also be supplied along with the AC unit as required. There should be 3 numbers of comprehensive free service for the AC unit (IDU & ODU) for one year, applicable from the date of commissioning. One year replacement warranty should be provided for the entire AC unit along with two years exclusive warranty for PCB (Make- Legrand, OBO Betterman, MK India or Clipsan) and ten years exclusive warranty for the compressor. (Make- Panasonic, Voltas, Carrier, Mitsubishi, Blue Star or Daikin). 2-Ton 5-star split type inverter AC unit.	3.00	each			
2	od74984/2020_2021 : Supply and providing extra length of superior quality soft drawn bright annealed copper refrigerant pipes (suction and discharge) of suitable sizes for extending the refrigerant piping between ODU and IDU of the AC unit and properly insulating the copper pipes with 10 mm thick closed cell Class O elastomeric nitrile rubberised foam sleeve insulation and the joints sealed with black cotton tape with proper mechanical fixing including brazing, pressure check, leak testing etc as required.	6.00	metre			

3	od103669/2020_2021 : Supply and drawing following sizes of multi-core PVC insulated & FRLS PVC sheathed 650 / 1100 V grade copper conductor round flexible cables conforming to IS: 694 part-1 1960 in the existing surface / recess conduit for electrically connecting IDU and ODU of the AC unit as required. 4-core 2.50 sq. mm	6.00	metre			
4	od74988/2020_2021 : Supply and fixing good quality of factory made powder coated MS frames (condensor stand) with all required accessories including suitable size anchor bolts, anti vibration pads etc for mounting the out door unit of AC in position as required.	3.00	set			
5	od74991/2020_2021 : Supply, installation, testing and commissioning of wall mounting type 5 kVA voltage stabilizer with input voltage range of 170 V - 270 V and having features of high power efficiency, intelligent time delay system, Low & High voltage cut-off protection, built-in thermal overload protection, LED indications etc suitable for single phase 2-Ton air conditioner unit with three years warranty and three months replacement guarantee. (Make: V-Guard, V-Stab, Pioneer, Crompton or Microtek)	3.00	each			
6	90.10.3.23 : Supply and Fixing the following modular switches & accessories in the existing front plates and giving necessary connections as required (RoHS compliant)16A 3 pin plug top	3.00	each			
PAC Rs. 12 % G.S.T GRAND TOTAL I/We agreed at quoted rate.						

CONTRACTOR

sd/-
UNIVERSITY ENGINEER