

**UNIVERSITY OF KERALA**  
**Engineering Unit, Kariavattom**

**TENDER SCHEDULE FOR IMPLEMENTATION OF IT TRAINING CENTRE AND SOFTWARE DEVELOPMENT  
CENTRE AT COMPUTER BUILDING SH CAMPUS TVPM - INSTALLATION OF AIR CONDITIONERS**

| Sl.No | Quantity | Description   | Unit | Rate | Rate in words | Amount |
|-------|----------|---|------|------|---------------|--------|
| 1.    | 1 unit   | Supply, installation, testing and commissioning of 11TR (DSA 1321 R1) Air – cooled packaged AC equipped with 1No. 11TR energy efficient scroll compressor along with supply and providing hard drawn copper refrigerant piping inter connecting the condenser unit and indoor unit with necessary insulations including necessary installation work | E    |      |               |        |
|       |          | <b>TOTAL</b>  |      |      |               |        |

*The rate includes all the ancillary works listed below*

| Sl, No. | Description & Quantity   |
|---------|--|
| 1.      | Supply and providing hard drawn copper refrigerant piping interconnecting the condenser unit and indoor unit with necessary insulations  |
|         | (a) Suction (1 1/8") & Discharge (7/8") - <b>6mtr</b>  |
| 2.      | Insulated drain piping with trap in the outlet of the indoor units with all fittings – <b>5mtr</b>   |
| 3.      | Canvas connection of fire retardant quality for connecting indoor unit to ducting/plenum – <b>1 No.</b>  |
| 4.      | Electrical work between indoor and outdoor units – <b>9 mtr</b>  |
|         | Using 5 core 1.5sqmm cable   |
| 5.      | Sheet metal work GSS ducting with all fitting as per design such as tee bends, turning vanes, splitter damper insp. Door suspension and support arrangement for plenum, ducts, etc. (for supply ducts) |
|         | (a) 22g GSS ducting in sqm – <b>6sqm</b>   |
|         | (a) 24 g GSS ducting in sqm – <b>60sqm</b>   |

|     |  |
|-----|--|
| 6.  | Supply and fix fiberglass insulation resin bounded to the duct with pre laminated reinforced aluminium foil and sealed with self adhesive aluminium foll tape 25 mm thick insulation density of 4kg/sqm (tail end) – <b>11 sqm</b> |
| 7.  | Supply and fix acoustic duct lining with 12mm resin bounded fiberglass and 28G perforated aluminium sheet on the plenum and from 6mtr of supply duct from the plenum – <b>11 sqm</b>   |
| 8.  | Supply and fix grills/diffusers our of extruded aluminium construction with powder coated finish   |
|     | (a) Linear air grills or diffuser with VCD – <b>1.7 sqm</b>  |
|     | (b) Linear air grills or diffuser without VCD – <b>1.7 sqm</b>   |
| 9.  | Commissioning of the air conditioning unit after necessary leak test and charging the system by using R-22 refrigerant gas and finally air and temperature balancing 11 – <b>11 TR</b>   |
| 10. | Transportation and unloading – <b>1 lot</b>  |

I/We agreed to execute the work in the rate quoted against each items.

**UNIVERSITY ENGINEER.**

**CONTRACTOR**