

NAME :
CONTACT NO :
DEPARTMENT :

Date:
Time:

| S No | Activity | Key Learning | | | | | | | | | Marks Total | Scored Mark in DUCTING/75 |
|----------------------|---|-----------------------------------|---------------------------|---|---|---|----------------------------|---------------------------------|--------------------------------|---------------------|--------------------|-------------------------------|
| 1 | Materials knowledge for ducting (about specification and Application) | Underdeck insulation | Thermal insulation | Acoustic insulation | Duct (shape , type and typical duct connection & type of air ducts) | Grilles, diffusers and registers | Canvas | Dampers | Sound attenuators and CTS | Supports materials | 9 | |
| 2 | Underdeck insulation (thermocol slap, XLPE puff sheet, phenolic panels) | Measurements and cutting | Pasting | Oriented Drilling | Fixing | | | | | | 4 | |
| 3 | Installation of all Indoor units | Dimensions | Marking | Drilling | Supports | Lifting | Slope levelling | Protection (cover &cotton box) | Disconnection of PCB & control | | 8 | |
| 4 | Acoustic insulation (glass wool rigid board, open cell nitrile rubber) | Measurement | Cutting / Pasting | Drilling | Supports | | | | | | 4 | |
| 5 | Thermal insulation (closed cell nitrile rubber, XLPE puf sheet, | Measurement | Cutting / Pasting | ALU tapping & rubbing | Supports | | | | | | 4 | |
| 6 | Calculation of required materials for ducting work | Study of Drawing (plan & section) | Supports | Insulation materials | Screws and 6mm bolt nut | | | | | | 4 | |
| 7 | Installation of GI Ducting | Study of drawing | Casket and cleat | Assembly at Floor level | Marking | Drilling | Supports from RCC | Supports from Tress | Lifting | Alignment | 9 | |
| 8 | Installation of GI Ducting branch and collar work | Study of drawing | Measurements | Marking | Cutting | Turning vanes | Flexible duct connections | Installation | | | 7 | |
| 9 | GI Ducting leak test | Elect. light test | Smoke test | Pressure test | Leak arrest | | | | | | 4 | |
| 10 | Installation of Grilles and diffusers | Study of drawing | Measurements | Marking/ cutting | Supports & black tap | Deflection | Installation | | | | 6 | |
| 11 | Installation of Canvass connections | Measurements | Marking/drilling | Installation | | | | | | | 3 | |
| 12 | Installation of damper | Study of drawing | Air flow direction | Locating | Positioning and installation | Ensure the damper louvers is opened | | | | | 5 | |
| 13 | Installation of sound attenuator, CTS | Study of drawing | Air flow direction | Positioning and installation | | | | | | | 3 | |
| 14 | Tests and air balancing | CFM test readings | Return air calculation | Check the return air path_ air tight partition | Adjusting dampers and vanes | Check hot air mixing | | | | | 5 | Scored Mark in PIPING/42 |
| 15 | Materials knowledge for piping (about specification and Application) | Cu pipe and drain pipe | Tubular insulation | Gas cylinders (O2, N2 and acetylene, Argon and Helium) | Rubber bad | Power , control and communication cable | Flare-nuts and sealing tap | Pressure gage and hose | Supports | | 8 | |
| 16 | Copper Piping measurement and supports | Study of drawing | Routing | Marking | Drilling | Tubular Insulation | Supports | | | | 6 | |
| 17 | Installation of Copper Piping | Study of drawing | Measurement | VRF System | Settings | Brazing | Welding | Flaring | Weather proofing coat | | 8 | |
| 18 | Installation of cable | Control cable | communication cable | VRF System - communication cable | | | | | | | 3 | |
| 19 | Installation of Condensate drain | Measurement | Marking | Drilling | Sleeves | Supports | Routing & slope levelling | U - Trap | Drain pump installation | | 8 | |
| 20 | Installation of all Outdoor units | Dimensions | Marking | drilling | Rubber pad | Lifting | Protection | | | | 6 | |
| 21 | Nitrogen Pressure testing, leak testing | N2 Pressure | Leak test with soap water | Leak arrest | | | | | | | 3 | Scored Mark in ARC WELDING/13 |
| 22 | Materials knowledge for Arc welding (about specification and Application) | C' -channel, 'L' angle | Electrode rods | Supports | Red oxide/paint | | | | | | 4 | |
| 23 | Arc Welding | Study of drawing | Measurements | Materials calculation | Material orientation | Cutting / Grinding / painting | Duct supports | Indoor supports / stand | Outdoor supports / stand | Supports from Tress | 9 | |
| Total marks | | | | | | | | | | | 130 | |
| Prepared By | | | | | | | | | | | Total scored marks | |
| GPS | | | | | | | | | | | Percentage | |
| Employees sign | | | | | | | | | | | | |
| Authorised Signatory | | | | | | | | | | | | |
| GV sir | | | | | | | | | | | | |