

Principal of welding process- arc welding, oxy fuel gas welding / cutting, brazing & soldering, safety method in welding. Tube cutting, flaring, swaging bending etc. method of leaking detection, evacuation, gas charging and testing.

Simple electrical circuit, series and parallel circuit, RSIR, CSIR, PSC, & CSR, different type of resistance, earthing and fuses. Type, grades and sizes insulated wire and cables, ac motor - single phase and three phase, starter and transformer, their working principle. Starting and running capacitors, relay and PTC.

Basic principal, types component, accessories and controls of refrigeration system, Domestic, commercial refrigeration, package ac and AC plant, controls used in ac system modulating valves for temperature controls, electromechanical, pneumatic, electronic. Introduction to load calculation in ac building, sensible and latent heats.

Principal and component of hermetic, semi hermetic and open type compressors, screw type compressor, Rotary, Scroll, Reciprocating compressor. multi stage compressor their function and application. type of condensers evaporator, cooling tower etc. Properties of refrigerant, CFC, HFC, HCs & non CFC refrigerant.

Basic of indoor air quality, Function of air filter, type, constructions and maintenance, effect of choke air filter, humidification & dehumidification, humidifier & dehumidifier.

Comfort air conditioning conditions, psychometrics, dry and wet bulb, dew point temperature introduction to psychometric charts.