

# ELECTRICAL COMMERCIAL (RAC) LAB

## Description

Refrigeration Technicians, commonly known as Refrigeration Mechanics, repair, install and troubleshoot refrigeration systems. They can work on industrial or residential climate-control systems, such as HVAC units, ice machines, beverage equipment and refrigerated storage units

## Objectives

On completion of This course, the students are expected to gain knowledge about refrigeration and air conditioning system, analysis and design calculations. The objectives of the course are to enable the student familiarize the following components of refrigeration systems.

- Understand the principles of refrigeration and air conditioning.
- To understand vapour compression and vapour absorption system operation.
- Analyse the refrigeration cycles & methods for improving performance.
- Design refrigeration & air conditioning systems using cooling load Calculations.
- Know the application of refrigeration and air conditioning.
- Energy Conservation and Management.

## Key areas covered

1. Various refrigeration cycles and its applications
2. Applications of various refrigeration and air conditioning machines

## Significance of the Laboratory

This lab is suitable for students of ITI, Diploma and Engineering. To enhance their knowledge in the following areas

- It gives experience on repair and Maintenance of R&AC equipment's
- This lab will help you, how to calculate and forecast the requirement of refrigeration in a unit.

## List of Equipment Available

Scroll Chiller (Air-cooled) 10 TR, VRF IV Plus system 8 HP, Ducted split unit 5.5 TR - Indoor, Outdoor, Cassette unit 1.5 TR - (Indoor, Outdoor), High wall split (2 star) 1 tr - (Indoor, outdoor), Window unit (2 star) 1 tr - (Indoor, outdoor), Deep Freezer Hard Top 100 Litres, Bottle Cooler Hard Top 300 Litres, Water cooler 20/20 Litres, Bottle Water Dispenser, Cold room 6000 BTU/ Hr - Assembled Unit







