

HVAC Level II

APPLYING LIGHT COMMERCIAL AIR CONDITIONING

Describe What Is Meant By High Pressure Or Low Pressure System
Explain The Purpose Of A Cooling Tower
Describe The Different Types Of Compressors
Explain The Term Absorption

UNDERSTANDING HEAT PUMPS

Describe The Different Types Of Heat Pumps And Their Function
Identify The Components Of A Heat Pump System
Describe The Basic Operation Of A Heat Pump System
Describe The Control Sequence On An Air To Air Heat Pump
Describe The Defrost Cycle Of A Heat Pump System
Troubleshoot The Heat Pump Reversing Valve
Explain The Auxiliary Heating Unit Of A Heat Pump
Perform Preventive Maintenance On A Heat Pump System
Perform Troubleshooting Techniques On A Heat Pump System

PERFORM REFRIGERANT RECOVERY UNDER EPA REGULATIONS

Describe What Is Meant By Ozone Depletion
Discuss What Is Involved In The Montreal Protocol
Understand The EPA Legislation And Regulations
Describe What Is Meant By Recovery, Recycling And Reclaiming
Describe The Types Of Certification

COMPREHENDING GAS HEATING

Describe The Major Components Of A Gas Furnace
Describe Gas Combustion
Describe The Different Types Of Gas Valves And Their Function
Describe The Different Types Of Ignition Systems And Their Function
Describe The Safety Devices And Their Purpose
Perform An Efficiency Test On A Gas Furnace
Perform Preventive Maintenance On a Gas Furnace
Perform Troubleshooting Techniques On A Gas Furnace

COMPREHENDING OIL HEATING

Describe The Major Components Of An Oil Heating System
Describe How Fuel Oil & Air Are Prepared & Mixed For Proper Combustion
Describe Products Produced As A Result Of Combustion
Describe The Components Of A Gun Type Oil Burner
Describe The Safety Devices And Their Purpose
Perform An Efficiency Test On An Oil Heating System
Perform Preventive Maintenance On An Oil Heating System
Perform Troubleshooting Techniques On An Oil Heating System

WORKING WITH ELECTRIC HEATING SYSTEMS

Discuss The Efficiency Of Electric Heat
Describe How Sequencers Work
Describe The Safety Devices And Their Purpose
Understand And Read An Electric Heat Wiring Diagram
Perform Troubleshooting Techniques On An Electric Heating System

UNDERSTANDING HYDRONIC HEATING SYSTEMS

Identify The Different Types Of Hydronic heating systems
Identify The Different Types Of Boilers And Their Purpose

Describe Way To Eliminate Air In A Hydronic System
Describe The Safety Devices And Their Purpose

APPLY KNOWLEDGE OF DEHUMIDIFICATION AND HUMIDIFICATION

Identify The Benefits Of Proper Humidification
Understand And Use The Psychrometric Chart
Explain The Different Types Of Humidifiers
Understand Health Factors In Dehumidification And Humidification

APPLY KNOWLEDGE OF AIR FILTRATION AND INDOOR AIR QUALITY

Describe What Is Meant By Indoor Air Quality
Describe The Function And Application Of Air Filters
Identify The Types Of Air Filters
Identify Air Contaminants Which Affect Our Lives
Discuss The Ventilation Requirements Of A Conditioned Space
Explain The Principles And Methods For Air Cleaning

PERFORM HEAT LOSS, HEAT GAIN CALCULATIONS AND DUCT DESIGN

Perform Heat Loss Calculation Of A Structure
Perform Heat Gain Calculation Of A Structure
Identify Different Types Of Duct Design
Identify Factors Affecting Supply And Return Duct Systems

Complete Portfolio

Complete Mock Job Interview

PERSONAL QUALITIES

Work Effort
Safety Habits
Work Area Organization
On Task Behavior
Responsibility
Initiative
Team Work
Respect
Interpersonal Skills