

- a) Density
c) Viscosity
- b) Specific volume
d) Enthalpy
- (ix) Select the property of a refrigerant that indicates its resistance to thermal changes.
a) Boiling point
c) Enthalpy
- b) Specific heat capacity
d) Saturation pressure
- (x) Choose the primary purpose of psychrometry.
a) Study of human behavior
c) Study of air and its properties
- b) Study of psychological disorders
d) Study of soil properties
- (xi) Choose the term used to describe the total heat content of air.
a) Sensible heat
c) Specific heat
- b) Latent heat
d) Enthalpy
- (xii) Identify the refrigerant pressure at the outlet of a compressor.
a) Suction pressure
c) Critical pressure
- b) Discharge pressure
d) Back pressure
- (xiii) Choose the following is a CFC refrigerant
a) R 744
c) R 718
- b) R 502
d) R 290
- (xiv) Identify the device that is NOT a type of expansion valve.
a) Thermostatic expansion valve
c) Float valve
- b) Electronic expansion valve
d) Manual expansion valve
- (xv) Select the refrigerant flow control device that is suitable for small refrigeration systems.
a) Thermostatic expansion valve
c) Float valve
- b) capillary tube
d) Orifice plate

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define refrigeration effect. (3)
3. Explain the term coefficient of performance (COP) in refrigeration. (3)
4. Describe about any three suitable physical property of refrigerant. (3)
5. Sketch P-h and T-s diagram of vapour compression refrigeration cycle. (3)
6. Explain the working on solenoid valve. (3)

OR

Explain the working of a water coolers. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the advantages and disadvantages of air cooled condenser. (5)
8. Explain the various components of steam jet refrigeration system and clearly discuss the function of each component. (5)
9. For simple vapour compression cycle, enthalpy at suction = 1600 kJ/kg, enthalpy at discharge from the compressor = 1800 kJ/kg, enthalpy at exit from condenser = 600 kJ/kg. Determine the COP for this refrigeration cycle. (5)
10. Describe the principle of steam jet refrigeration system. (5)
11. Explain the working of thermostatic expansion valve with neat diagram. (5)
12. Explain the following psychrometric terms:- i) Dry bulb temperature ii) Wet bulb temperature. (5)

OR

Explain the following psychrometric terms:- i) Dew point temperature ii) Relative humidity. (5)
