

Q.17 State difference between SO₂ and F-12 refrigerants.

Q.18 What are secondary refrigerants ? Compare with primary refrigerants.

SECTION-D

Note: Long answer type questions. Attempt any one questions out of two questions. (1x10=10)

Q.19 Explain Bell-Coleman cycle in detail?

Q.20 Explain limitations of Vapour Absorption Refrigeration cycle and write the formula for its efficiency?

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1st Sem / DVOC Level 5 (Ref. & Air Cond.) Subject : Basics of Refrigeration

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Multiple Choice questions. All questions are compulsory. (5x1=5)

Q.1 One ton of refrigeration is equal to

- a) 21 KJ/min b) 210 KJ/min
- c) 420 KJ/min d) 620 KJ/min

Q.2 What is meant by static pressure?

- a) Moving air pressure
- b) Ambient air pressure
- c) Air diffusing pressure
- d) Still air pressure

Q.3 Where does higher temperature occurs in vapour compression Refrigeration systems?

- a) Receiver b) Evaporator
- c) Expansion valve d) Compressor discharge

Q.4 What is the value of one calorie?

- a) 32 Joules b) 4.2 Joules
- c) 3.2 Joules d) 2.34 Joules

Q.5 Due to absorption of heat by evaporator the refrigerant converts into

- a) Saturated vapour b) Liquid
- c) Sub cooled liquid d) Saturated liquid

SECTION-B

Note: Objective type questions. All questions are compulsory. (5x1=5)

Q.6 Refrigeration is based on _____ statement of second law of thermodynamics.

Q.7 A set of tubes with external fins placed at back of refrigerator is _____.

Q.8 Chemical formula of Ammonia is _____.

Q.9 Molecular mass of CO₂ is _____.

Q.10 Bell-Coleman cycle is a _____ (practical/ideal) cycle.

SECTION-C

Note: Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)

Q.11 What is refrigeration? Explain any two simple methods of refrigeration.

Q.12 What is purpose of compressor? Explain its working.

Q.13 Draw P-V & T-S diagram of Carnot cycle?

Q.14 What is Vapour Absorption Refrigeration System. Explain with diagram.

Q.15 Explain 5 properties of ammonia.

Q.16 Write 5 applications of Refrigeration.