Q.18 Explain domestic Electrolux refrigerator working on vapour absorption cycle?

SECTION-D

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

Q.19 Explain Vapour compression refrigeration system & its various parts with diagram.

Q.20 Write a short note on any two:-

a) Explain in brief Carnot cycle of refrigeration

b) Vapour Absorption refrigeration system

c) Bell Coleman Cycle of refrigeration

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Level 5 / 1st. Sem. / DVOC

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 Solid carbon dioxide is also known as

a) Dry ice b) Steam

c) Ammonia d) None of above

Q.2 The ratio of heat extracted in the refrigerator to the work done on the refrigeration is called as:

a) C.O.P. of heat pump

b) C.O.P. of heat engine

c) Refrigerating efficiency

d) C.O.P. of refrigerator

Q.3 The refrigerant widely used in refrigerator is:

a) R-12 b) R-22

c) R-717 d) R-744

Q.4 Sub cooling is the process of cooling the refrigerant in vapour compression system

a) After compression b) Before compression

c) Before throttling d) After throttling

Q.5 The function of generator is to

a) Generate power for the system

b) Decrease ammonia concentration

c) Increase ammonia concentration

d) Separate ammonia from the solution

SECTION-B

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

Q.6 Define C.O.P. of refrigerator.

Q.7 What is the function of condenser in Vapour compression system?

Q.8 Name any two secondary refrigerants.

Q.9 What is the function of expansion valve in refrigerator?

Q.10 Which refrigerant is used in domestic Electrolux refrigerator?

SECTION-C

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

Q.11 Explain various applications of refrigeration systems.

Q.12 Explain various properties of refrigerant : Ammonia and Freon.

Q.13 Explain in brief effects of sub cooling the refrigerant on C.O.P.

Q.14 What are the desirable qualities of ideal refrigerant?

Q.15 Explain primary refrigerants with examples.

Q.16 A carnot cycle machine operates between temperature limits of 50 degree Celsius and -35 degree Celsius. Determine C.O.P. when it operate as

1. A refrigerating machine
2. A heat engine

Q.17 Explain in brief various methods of refrigeration with neat sketch.