No. of Printed Pages : 2
Roll No. .....

188451

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

Time : 2 Hrs. M.M. : 50

SECTION-A

Note: Very short answer type questions . Attempt all ten questions (10x1=10)

Q.1 What is one ton of refrigeration?
Q.2 Where Co2 is used in refrigeration?
Q.3 What is the highest value of COP ?
Q.4 Name the processes in reversed carnot cycle.
Q.5 What is the function of flash chamber in vapour compression cycle ?
Q.6 What is the chemical name of F-12?
Q.7 What is the drawback of simple vapour absorption cycle.
Q.8 Name two classes of refrigerant.
Q.9 Why ammonia is not used in household refrigerator?
Q.10 What is the difference between heat engine and refrigerator?

SECTION-B

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

Q.11 Explain dry ice refrigeration.

Q.12 What is superheating of refrigerant and its effects in Vapour compression cycle ?
Q.13 Explain the working of Bell Coleman cycle with the help of T-S diagram.
Q.14 A 1.5 ton air conditioner consumes 2.5 KW of energy at its full capacity. It has 200 W of motor for fan and blower to circulate air through the condenser and evaporator. what is the COP of the system?
Q.15 Explain the function of heat exchanger and analyser in actual vapour absorption cycle.
Q.16 Explain the effect if varying temperature on COP of value compression cycle.
Q.17 Explain with diagram the cycle on which the air refrigeration work?
Q.18 Explain steam jet refrigeration method.

SECTION-C

Note: Long answer type questions. Attempt any one question out of two questions. (10x1=10)

Q.19 Explain the working of domestic refrigerator with the help of line diagram.
Q.20 A reverse Carnot refrigerator has temperature of 260 degree K in refrigerator coil and 296 degree K in condenser coil . find
a) COP of the refrigerator
b) Refrigerating effect per KW of input work
c) Heat rejected by the condenser.