S.B. Roll No.....

REFRIGERATION AND AIR CONDITIONING EQUIPMENT

5th/RAC/0654/5415/May'16

Duration: 3 Hrs **M. Marks=75**

Note: SECTION A is compulsory.

SECTION A

Q.1 Fill in the blanks. **10x1.5=15**

a) The rotary compressors are suitable for refrigerants having …….specific volume.(High/low)
b) The heat carrying capacity of air condensers is ……(Good/poor)
c) An evaporator is use in ……. …pressure side of a refrigeration system. (Low/High).
d) ……tube is used as an expansion device in refrigeration systems.
e) The commonly used materials (any two) for refrigeration piping are ……..
f) To protect a compressor from over loading ……is used.
g) ……..is used to measure air flow of air conditioners.
h) ……..is used for air flow measurement in air conditioning systems.
i) ……cooled condenser is used in window type air conditioners.
j) …… is used for temperature control in domestic refrigerators.

SECTION B

Q.2 Attempt any FIVE questions. **5x6=30**

a. Discuss the desirable properties of ideal insulating materials.
b. Explain working of rotary compressor.
c. What are natural and forced cooling evaporators?
d. What are advantages of water cooled condensers over air cooled condensers?
e. What are the factors to be considered for choosing refrigeration piping?
f. What is fan rating?
g. What are low temp and high temp switches?
h. What are the methods and equipments used for measurement of humidity?

SECTION C

Q.3 Attempt any THREE questions. **3x10=30**

a. Explain with sketch the working of Hermetically Sealed compressor
b. Write a note on cooling towers and spray ponds.
c. Explain construction and working of different types of evaporators.
d. Explain working of solar refrigeration system
e. Explain thermometers, thermocouples, thermistor, pyrometers used for temperature measurement in refrigeration.
f. Explain fouling phenomenon in condensers. How this factor is responsible for proper operation of a condenser.