

- Q.26 Write the advantages of central air conditioning system. (CO7)
- Q.27 Explain evaporative condenser with neat sketch. (CO5)
- Q.28 How is a refrigerant selected? explain. (CO3)
- Q.29 Explain low pressure cut-out switch with diagram. (CO5)
- Q.30 Explain liquid gas refrigeration. (CO1)
- Q.31 Write a short note on cooling tower. (CO5)
- Q.32 Write the properties and uses of R-134a. (CO3)
- Q.33 Define C.O.P. What is the difference between C.O.P. and efficiency. (CO1)
- Q.34 Explain sensible heating. (CO6)
- Q.35 Write the name of important components of a car air conditioning system. (CO7)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain split air conditioner with the help of neat sketch. (CO7)
- Q.37 Explain vapour compression refrigeration system with neat sketch. (CO2)
- Q.38 Explain solar power refrigeration system with neat sketch. (CO4)

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Roll No.

5th. Sem / Mech. Engg. (MSIL)

Subject:- Refrigeration and Air Conditioning

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The ratio of heat extracted in refrigerator to the work done is called (CO1)
- C.O.P. of heat pump
 - C.O.P. of heat engine
 - Refrigerating efficiency
 - C.O.P. of refrigerator
- Q.2 Which of the following refrigerant is highly toxic and flammable (CO3)
- Ammonia
 - Carbon dioxide
 - Sulphur dioxide
 - R-12
- Q.3 An Electrolux refrigerator is called a (CO4)
- Single fluid absorption system
 - Two fluid absorption system
 - Three fluid absorption system
 - None of these
- Q.4 The commonly used refrigerant in window air-conditioner is (CO7)
- R-12
 - R-22
 - R-13
 - R-717

- Q.5 During sensible heating of air, the humidity ratio (CO6)
- increases
 - decreases
 - remains constant
 - none of the above
- Q.6 The condensing medium used in evaporative condenser is (CO5)
- air only
 - water only
 - air and water
 - none of the above
- Q.7 A mixture of dry air and water vapour, when the air has diffused maximum amount of water vapour into, it is called
- dry air
 - moist air
 - saturated air
 - specific humidity
- Q.8 The domestic refrigerator capacity may be approximately (CO1)
- 1 ton
 - 0.1 to 0.3 ton
 - 5 ton
 - 10 ton
- Q.9 A vapour absorption system (CO4)
- gives noisy operation
 - gives quiet operation
 - cools below 0°C
 - none of these
- Q.10 A refrigerant compressor is used to (CO5)
- raise the pressure of the refrigerant
 - raise the temperature of the refrigerant
 - circulate the refrigerant through the system
 - all of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define refrigeration. (CO1)
- Q.12 Write the function of evaporator in simple vapour compression system. (CO2)
- Q.13 The chemical formula of refrigerant R-22 is ____ (CO3)
- Q.14 Name two types of rotary compressors. (CO5)
- Q.15 A thermostat switch is a ____ control device. (CO5)
- Q.16 Write the full form of DPT. (CO6)
- Q.17 ____ Carriers liquid refrigerant from receiver tank to expansion valve. (CO2)
- Q.18 Define specific humidity. (CO6)
- Q.19 Air without moisture content is called ____ (CO6)
- Q.20 The C.O.P. of solar power refrigeration system is usually less than ____ (CO4)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain ice refrigeration. (CO1)
- Q.22 Explain effect of sub cooling the liquid. (CO2)
- Q.23 Name different psychrometric processes. (CO6)
- Q.24 Explain capillary tube with the help of neat sketch. (CO5)
- Q.25 Explain Heating and Humidification. (CO6)