

- 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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MSIL-121752/131752

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)
 a) increases b) decreases
 c) remains constant d) none of the above
- Q.6 The condensing medium used in evaporative condenser is (CO5)
 a) air only b) water only
 c) air and water d) 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
 a) dry air b) moist air
 c) saturated air d) specific humidity
- Q.8 The domestic refrigerator capacity may be approximately (CO1)
 a) 1 ton b) 0.1 to 0.3 ton
 c) 5 ton d) 10 ton
- Q.9 A vapour absorption system (CO4)
 a) gives noisy operation
 b) gives quiet operation
 c) cools below 0°C
 d) none of these
- Q.10 A refrigerant compressor is used to (CO5)
 a) raise the pressure of the refrigerant
 b) raise the temperature of the refrigerant
 c) circulate the refrigerant through the system
 d) 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)