Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: MEC604 and Course Name: Refrigeration and Air- Conditioning

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	**The COP of a Carnot refrigerator in winter will be _____ than in summer.**
Option A:	higher
Option B:	lesser
Option C:	same
Option D:	depends on the capacity of the plant
Q2.	**Pick up the wrong statement. A refrigerant should have**
Option A:	low specific heat of liquid
Option B:	high boiling point
Option C:	high latent heat of vaporization
Option D:	higher critical temperature
Q3.	**The COP of a domestic air conditioning in comparison to domestic refrigerator will be**
Option A:	same
Option B:	more
Option C:	less
Option D:	depends upon weather conditions
Q4.	**Which of the following cycle uses air as the refrigerant**
Option A:	Ericsson
Option B:	Stirling
Option C:	Rankine
Option D:	Bell-Coleman
Q5.	**Aqua-ammonia is used as a refrigerant in the following type of refrigeration system**
Option A:	compression
Option B:	indirect
Option C:	absorption
Option D:	never use

Q6.	**Freon group of refrigerants are**
Option A:	Inflammable
Option B:	Toxic
Option C:	Non-flammable and toxic
Option D:	Non-toxic and non-inflammable
Q7.	**In the vapour compression refrigeration system, the condition of refrigerant is saturated liquid**
Option A:	after passing through the condenser
Option B:	before passing through the condenser
Option C:	before entering the compressor
Option D:	after passing through the expansion valve
Q8.	**Evaporative cooling systems are ideal for**
Option A:	cold and humid conditions
Option B:	hot and humid conditions
Option C:	hot and dry conditions
Option D:	moderately hot but humid conditions
Q9.	**Ammonia-absorption refrigeration cycle requires**
Option A:	very little work input
Option B:	maximum work input
Option C:	nearly same work input as for vapour compression cycle
Option D:	zero work input
Q10.	**In lithium bromide absorption refrigeration system …… is used as refrigerant.**
Option A:	Water
Option B:	Lithium
Option C:	Bromide
Option D:	Freon
Q11.	**On Psychrometric Chart humidification process is shown by**
Option A:	Horizontal line
Option B:	Vertical line
Option C:	Inclined line
Option D:	Curved line
Q12.	**Pick up the wrong statement. A refrigerant should have**
Option A:	low specific heat of liquid
Option B:	high boiling point
Option C:	high latent heat of vaporization
Option D:	higher critical temperature
Q13.	**Sensible cooling lines is represented by ..... in psychrometric**

	charts.
Option A:	Horizontal line
Option B:	Vertical line
Option C:	Inclined line
Option D:	Curved line
Q14.	**In the vapour compression refrigeration system, the condition of refrigerant is saturated liquid**
Option A:	after passing through the condenser
Option B:	before passing through the condenser
Option C:	before entering the compressor
Option D:	after passing through the expansion valve
Q15.	**Generally, the wet bulb temperature, during sensible cooling .....**
Option A:	Increases
Option B:	Decreases
Option C:	Remains same
Option D:	Becomes zero
Q16.	**In a domestic vapour compression refrigerator, the refrigerant commonly used is**
Option A:	CO
Option B:	Ammonia
Option C:	Freon - 12
Option D:	R-134a
Q17.	**One-ton refrigeration corresponds to**
Option A:	50 kcal/min
Option B:	50 kcal/hr
Option C:	80 kcal/min
Option D:	80 kcal/hr
Q18.	**..... is used to control the temperature in the refrigerato**r.
Option A:	Thermostat
Option B:	starting relay
Option C:	overload protector
Option D:	Expansion valve
Q19.	**The aspect ratio for rectangular ducts should not be greater than____in any case.**
Option A:	8
Option B:	10
Option C:	12
Option D:	16
Q20.	**he subcooling is a process of cooling the refrigerant in vapour compression**

	refrigeration
Option A:	Before compression
Option B:	After compression
Option C:	After throttling
Option D:	Before throttling
Q21.	**The science of study of the thermodynamic properties of a mixture of dry air and water vapour in the atmosphere is called**
Option A:	Refrigeration
Option B:	Psychrometry
Option C:	Air conditioning
Option D:	Tonne
Q22.	**The velocity of air in air blast freezing varies between**
Option A:	7 to 8 m/min
Option B:	8 to 10 m/min
Option C:	30 to 120m /min
Option D:	14to 18 m/min
Q23.	Which of the following is not latent heat gain source
Option A:	Lightening
Option B:	Ventilation and infiltration
Option C:	Occupants body
Option D:	Cooking foods, baking, and boiling
Q24.	**The air-cooling system mostly used in transport type aircraft is**
Option A:	Simple air-cooling system
Option B:	Simple Evaporative Air-cooling system
Option C:	Boot-strap air cooling system
Option D:	Regenerative air-Cooling System
Q25.	**The total pressure exerted by the mixture of air and water vapour is equal to the sum of pressures which each constituent would exert, if it occupied the same space by itself. This statement is called**
Option A:	Kinetic theory of gases
Option B:	Newton's law of gases
Option C:	Dalton's law of partial pressures
Option D:	Avogadro's hypothesis