

These are sample MCQs to indicate pattern, may or may not appear in examination

**University of Mumbai**  
**Online Examination 2020**

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

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

Time: 1hour

Max. Marks: 50

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

Q1.	Two heat exchangers and two compressors are used in ___ Air Refrigeration system.
Option A:	Reduced Ambient
Option B:	Evaporative
Option C:	Boot Strap
Option D:	Regenerative
Q2.	Two heat exchangers, two compressors and an evaporator are used in ___ Air Refrigeration system.
Option A:	Boot Strap Evaporative
Option B:	Reduced Ambient
Option C:	Boot Strap
Option D:	Simple
Q3.	DART stands for
Option A:	Dry Air Rated Temperature distribution
Option B:	Dry Air Rated Turbine distribution
Option C:	Dry Air Rated Turbine discharge
Option D:	Dry Air Rated Temperature discharge
Q4.	_____ colling system gives maximum lowest temperature after Mach Number 1.5
Option A:	Reduced Ambient
Option B:	Evaporative
Option C:	Boot Strap Evaporative
Option D:	Boot Strap
Q5.	Which of the following refrigerant has the lowest boiling point ?
Option A:	ammonia
Option B:	carbon dioxide
Option C:	Sulfur dioxide
Option D:	R-12

Q6.	Which of the following is an Azeotrope refrigerant?
Option A:	R-11
Option B:	R-40
Option C:	R-114
Option D:	R-502
Q7.	The function of a halide torch is
Option A:	defrosting of the cooling coil
Option B:	superheating the vapour refrigerant
Option C:	detecting leakage of the refrigerant
Option D:	Facilitating better lubrication in the refrigerator
Q8.	Which of the following refrigerant highly toxic and flammable ?
Option A:	ammonia
Option B:	carbon dioxide
Option C:	sulfur dioxide
Option D:	R-12
Q9.	The evaporator generally used for wine cooling and in petroleum industry for chilling oil is
Option A:	plate evaporator
Option B:	finned evaporator
Option C:	tube in tube evaporator
Option D:	shell and tube evaporator
Q10.	Which of the following is the simplest method of cooling the condenser water
Option A:	spray cooling pond
Option B:	cooling tower
Option C:	indirect air cooling
Option D:	hyperbolic cooling tower
Q11.	An Electrolux refrigerator is a
Option A:	vapour compression refrigerator
Option B:	vapour absorption refrigerator with a reciprocating pump
Option C:	vapour absorption refrigerator without any pump
Option D:	vapour absorption refrigerator with a centrifugal pump
Q12.	Thermoelectric refrigeration uses a principle called the.....effect to pump heat electronically.
Option A:	PELTIER
Option B:	SEEBECH
Option C:	THOMSON
Option D:	JOULE-THOMSON
Q13.	Comparing mechanical power compression refrigeration system with absorption

	refrigeration system , the compressor of the former is replaced in the latter by
Option A:	an absorber and a liquid pump
Option B:	an absorber , a generator , a liquid pump and a pressure reduction valve
Option C:	an absorber , an evaporator , a liquid pump and an expansion valve
Option D:	a generator , an evaporator , a liquid pump and an expansion valve
Q14.	When the rate of evaporation of water is zero, the relative humidity of the air is
Option A:	0%
Option B:	100%
Option C:	50%
Option D:	70%
Q15.	The dehumidification process, on the Psychrometric chart, is shown by
Option A:	Horizontal line
Option B:	Vertical line
Option C:	Inclined line
Option D:	Curved line
Q16.	In case of sensible cooling of air, the coil efficiency is given by
Option A:	B.P.F. - 1
Option B:	1 - B.P.F.
Option C:	1/ B.P.F.
Option D:	1 + B.P.F
Q17.	The ratio of sensible heat to total heat is called as-
Option A:	Specific humidity
Option B:	Relative humidity
Option C:	Apparatus dew point
Option D:	Sensible heat factor
Q18.	The supply air state of cooling coil having by pass factor is at
Option A:	Intersection of RSHF line with saturation curve
Option B:	Intersection of GSHF line with saturation curve
Option C:	Intersection of ERSHF line with saturation curve
Option D:	Intersection of RSHF line and GSHF line
Q19.	Equal friction method of designing duct is preferred-
Option A:	When system is balanced
Option B:	When system is not balanced
Option C:	Only for return ducts
Option D:	For any system
Q20.	The index which co-relates the combined effect of dry bulb temperature, relative humidity and air velocity on the human body is known as-
Option A:	Mean radiant temperature
Option B:	Effective temperature

Option C:	Dew point temperature
Option D:	Wet bulb temperature
Q21.	The Vapour absorption refrigeration System uses .....Energy to change the condition of the refrigerant from the evaporator
Option A:	Heat
Option B:	Chemical
Option C:	Mechanical
Option D:	Electrical
Q22.	When Nitrogen expands at room temperature
Option A:	Heating is produced
Option B:	Cooling is produced
Option C:	Neither heating nor cooling is produced
Option D:	Volume increased
Q23.	The commonly used refrigerants in ice plants
Option A:	Ammonia
Option B:	R-12
Option C:	Brine Solution
Option D:	R-134a
Q24.	Which method of air liquefaction is more efficient
Option A:	Linde's Method
Option B:	Claude's Method
Option C:	Cascade Method
Option D:	Multiple evaporator vapour compression system
Q25.	In the Pasteurization Process milk is heated up to temperature of
Option A:	34 degree Celsius
Option B:	40 degree Celsius
Option C:	100 degree Celsius
Option D:	62 degree Celsius