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Score: 53/101 (52.48%)

Code: 6756

1. What is the atmospheric pressure at sea level?

- A) **1.033 kg/cm² (Correct)**
B) 1.3 Kg/cm²
C) 1.5 Kg/cm²
D) 1.6 Kg/cm²

2. What is the rate of doing work?

- A) Duty
B) Force
C) **Power (Correct)**
D) Velocity

3. What is the melting temperature of silver brazing rod?

- A) **1120 Degree F**
B) 1200 Degree F (Incorrect)
C) 1250 Degree F
D) 1300 Degree F

4. Which instrument is used to measure atmospheric pressure?

- A) Hygrometer
B) Hydrometer (Incorrect)
C) Manometer
D) **Barometer**

5. What is the unit of heat in M.K.S system?

- A) B.T.U (British thermal unit)
B) **K.Cal (Kilo Calorie)**
C) KV (Kilo Volt) (Incorrect)
D) K.W (Kilo Watt)

6. What is the boiling point of pure water in centigrade scale?

- A) 212 Degree Centigrade
B) **100 Degree Centigrade (Correct)**
C) 32 Degree Centigrade
D) 0 Degree Centigrade

7. What is bottom dead centre in reciprocating compressor cylinder?

- A) **The piston moves up from the point of cylinder**
B) The piston stops in cylinder at top
C) The piston moves down from the point of cylinder (Incorrect)
D) The piston starts in cylinder at top

8. What is the barometer reading at sea level in Hg column?

- A) **760 mm (Correct)**
B) 750 mm
C) 740 mm
D) 730 mm

9. What is the capacity of doing work?

- A) Work
B) Power (Incorrect)

C) Force

D) **Energy**

10. Which instrument is used for measuring heat?

- A) Thermometer (Incorrect)
B) Anemometer
C) **Calorimeter**
D) Ammeter

11. Which refrigeration system works on directly by the heat energy?

- A) Jet refrigeration
B) Mechanical refrigeration
C) **Vapour absorption refrigeration**
D) Vapour compression refrigeration (Incorrect)

12. What is the absolute zero temperature in degree centigrade?

- A) 0 Degree Centigrade
B) 100 Degree Centigrade
C) **-273 Degree Centigrade (Correct)**
D) 212 Degree Centigrade

13. How the level of heat in a substance is expressed?

- A) Micron
B) Pressure
C) Humidity
D) **Temperature (Correct)**

14. What is the energy of a body by virtue of its position?

- A) Wind energy
B) Kinetic energy
C) **Potential energy (Correct)**
D) Electrical energy

15. What is the physical state of ammonia at condenser inlet in vapour absorption system?

- A) Solid
B) Liquid
C) **Vapour (Correct)**
D) Semi solid

16. Which law is related to the constant PV at constant T?

- A) **Boyles law**
B) Charles s law
C) Pascal s law (Incorrect)
D) Renaults law

17. Which thermodynamic process the temperature is kept constant?

- A) Isobaric process (Incorrect)
B) **Isothermal process**
C) Constant volume process
D) Constant pressure process

18. What is the equivalent absolute scale for centigrade?

- A) **Kelvin (Correct)** B) Celsius
C) Rankine D) Fahrenheit

19. Which method is used to connect the swaged joint in copper tubes?

- A) TIG welding **B) Silver brazing**
C) Lead soldering (Incorrect) D) Fusion welding

20. Which components maintain the pressure difference in RAC system?

- A) Condenser and filter B) Evaporator and motor
C) Receiver and condenser **D) Compressor and expansion device (Correct)**

21. What is top dead centre in reciprocating compressor cylinder?

- A) The piston moves down from the point of cylinder** B) The piston moves up from the point of cylinder
C) The piston stops in cylinder at bottom (Incorrect) D) The piston starts in cylinder at bottom

22. Which component controls the thermostat and defrost heater in frost free refrigerator?

- A) Thermoheater **B) Defrost timer**
C) Relay (Incorrect) D) OLP

23. What is the advantage of using flux in brazing?

- A) Over heating B) Melting tubes
C) Prevent Oxidation (Correct) D) Chemical reaction

24. Which compressor dome handles high pressure and high temperature vapour?

- A) Semi hermetic reciprocating compressor B) Open type reciprocating compressor
C) Hermetic reciprocating compressor **D) Hermetic rotary compressor (Correct)**

25. What is the absolute pressure of gas in a cylinder, if gauge reads 135.3 p.s.i?

- A) 130 p.s.i.a B) 140 p.s.i.a
C) 150 p.s.i.a (Correct) D) 160 p.s.i.a

26. Which two components do the compressor function in vapour absorption system?

- A) Generator and absorber** B) Generator and separator
C) Generator and condenser (Incorrect) D) Generator and evaporator

27. Which components are connected by metering device in

vapour compression cycle?

- A) Condenser and evaporator (Correct)** B) Compressor and condenser
C) Evaporator and suction line D) Compressor and evaporator

28. Which condition is maintained for refrigerant in high side of vapour compression system?

- A) Above its critical temperature (Incorrect) **B) Below its critical temperature**
C) Above its freezing temperature D) Below its freezing temperature

29. Which factors produce work?

- A) Force and distance** B) Time and distance (Incorrect)
C) Force and power D) Force and time

30. What is the purpose of accumulator in a refrigerator?

- A) Improves oil circulation B) Prevents surging of refrigerant (Incorrect)
C) Avoids hunting of refrigerant **D) Prevents liquid flood back to compressor**

31. What is effect of compression process on refrigerant vapour?

- A) Heat the vapour below saturation (Incorrect) B) Cool the vapour above saturation
C) Increase the pressure and temperature D) Decrease the pressure and temperature

32. What is the type of condenser used in direct cool refrigerator?

- A) Fin and tube B) Shell and tube (Incorrect)
C) Wire mesh D) Tube in tube

33. Which type of condenser is directly placed on water spray and air?

- A) Shell and tube condenser B) Water cooled condenser
C) Evaporative condenser (Correct) D) Air cooled condenser

34. Which type of condenser is used in window Air conditioner?

- A) Natural convection **B) Forced convection (Correct)**
C) Water cooled D) Evaporative

35. Which type of expansion device is used in frost free refrigerator?

- A) Float valve **B) Capillary tube (Correct)**

C) Automatic expansion valve

D) Thermostatic expansion valve

36. Which is the constant reference for the working of AEV?

A) Oil temperature

B) Suction pressure (Correct)

C) Volume expansion

D) Discharge pressure

37. Which type of evaporator is used in house hold refrigerator?

A) Plate evaporator (Correct)

B) Tube in tube evaporator

C) Shell and coil evaporator

D) Shell and tube evaporator

38. Which evaporator is known as extended surface evaporator?

A) Evaporator tubes

B) Finned evaporator (Correct)

C) Bare tube evaporator

D) Coiled stake evaporator

39. Which type of insulation material is used in modern refrigerators?

A) Saw dust

B) Glass wool (Incorrect)

C) Thermocole

D) Poly urethane foam

40. Which colour is used for painting condenser coil?

A) Green

B) Black (Correct)

C) Blue

D) Red

41. What is the physical state of refrigerant at the outlet of condenser in vapour compression cycle?

A) High pressure vapour

B) High pressure liquid

C) Low pressure liquid (Incorrect)

D) Low pressure vapour

42. Which type of drier filter is suitable for HFC refrigerants?

A) Molecular sieve type

B) Activated alumina (Incorrect)

C) Activated carbon

D) Silica gel

43. What is the purpose of chemical spraying on finned condenser?

A) Flush out the condenser tubes

B) Remove the rust on the fins

C) Blow the dust from the fins

D) Correct the bends in fins (Incorrect)

44. What is the advantage of using capillary tube as an expansion device?

A) Temperature balancing is easy (Incorrect)

B) Pressure balancing is easy

C) Volume balancing is easy D) Complicate design

45. Which component is connected in series with defrost heater in a frost free refrigerator?

A) Door switch

B) Cabinet bulb

C) Bimetal thermo (Correct)

D) Heating element

46. How much minimum gap is left on either side of the refrigerator from the wall during installation?

A) 5 cm (Incorrect)

B) 10 cm

C) 15 cm

D) 25 cm

47. Where the dehydrator is installed in a refrigeration system?

A) Discharge line

B) Capillary line

C) Suction line

D) Liquid line (Correct)

48. Which device meters the amount of refrigerant entering the evaporator in window AC?

A) Accumulator

B) Capillary tube

C) Heat exchanger (Incorrect) D) Finned tube condenser

49. Which gas is used for flushing blocked capillary tube?

A) Moist air

B) Hydrogen

C) Dry nitrogen (Correct)

D) Aqua ammonia

50. Which component is connected in series with bimetal thermo in a frost free refrigerator?

A) Blower

B) Door switch

C) Cabinet bulb

D) Defrost heater (Correct)

51. Which cooling medium is used to condense the refrigerant vapour in plate and tube condenser?

A) Natural Air

B) Forced Air

C) Water

D) Brine solution (Incorrect)

52. Which gas is used to flush out the coils of air cooled condenser?

A) Dry nitrogen (Correct)

B) Pure dry air

C) Oxygen

D) kaksr

53. Which application uses the capillary tube expansion device?

A) Domestic RAC units

B) Industrial ice plants (Incorrect)

C) Commercial AC plants

D) Hospital IAQ systems

54. Which expansion valve is suitable for constant load operation?

- A) King valve
C) Low side float valve

- B) Relief valve
D) Automatic expansion valve (Correct)

55. What is the physical change of refrigerant in evaporator?

- A) Solid to liquid
C) Liquid to vapour
B) Vapour to solid (Incorrect)
D) Vapour to liquid

56. What is the process of accumulation of ice on the surface of evaporator?

- A) Frosting**
C) Evacuating
B) Defrosting (Incorrect)
D) Melting of frost

57. What is the use of dehydrator?

- A) Absorb oil
C) Absorb refrigerant
B) Absorb heat (Incorrect)
D) Absorb moisture

58. How pressure drop is achieved in capillary tube of refrigeration cycle?

- A) The friction between refrigerant and tube**
C) The friction between piston and cylinder (Incorrect)
B) The friction between refrigerant and oil
D) The friction between belt and pulley

59. What is the desiccant used in dehydrator of hydrocarbon charged RAC unit?

- A) Silica gel**
C) Sulphur dioxide
B) Ammonia (Incorrect)
D) Calcium chloride

60. Which is the constant operating condition of TEV?

- A) Super heat at suction line point**
C) Enthalpy at the evaporator outlet (Incorrect)
B) Evaporator pressure at its inlet
D) Entropy at the condenser outlet

61. Which type of defrosting method is used in frost free refrigerator?

- A) Hot water defrosting
C) Hot gas defrosting
B) Manual defrosting
D) Electric defrosting (Correct)

62. Why evaporator of air conditioner has more fins per inch?

- A) Increase the air contact (Correct)**
C) Decrease the air circulation
B) Increase the water dripping
D) Produce more ice

63. Why frost accumulates in window AC evaporator?

- A) Over charge of refrigerant
B) Less charge of refrigerant

- C) Capillary chocking
D) Air filter blocked (Correct)

64. What is the effect of pressure drop at the inlet of the evaporator?

- A) Flashing of liquid refrigerant (Correct)**
C) Freezing of liquid
B) Freezing of liquid refrigerant
D) Boiling of oil

65. What is the remedy for broken bimetal thermo in a frost free refrigerator?

- A) Repair the bimetal thermo
C) Replace the bimetal thermo
B) Reuse the bimetal thermo (Incorrect)
D) Readjust the bimetal thermo

66. Why there is no frosting at the bottom only in plate coil evaporator used with refrigerator?

- A) Shortage of refrigerant
C) Excess of refrigerant
B) Oil present in the coil (Correct)
D) Liquid in the coil

67. Why the supply air throw is decreased in window AC?

- A) Normal RPM of fan motor
C) Refrigerant leaks
B) Clean air filter
D) Frost blocks air circulation (Correct)

68. What is the remedy for defective heating element in a frost free refrigerator?

- A) Repair heater
C) Replace heater and bimetal thermo (Correct)
B) Readjust the heater
D) Reuse the heater and over load protector

69. What are the causes for blockage in capillary tube?

- A) Non condensable gases (Incorrect)
C) Solid particles
B) Moisture and wax from oil
D) Over charging of refrigerant

70. What is the reason for frost accumulation in between fins and tubes of evaporator in frost free refrigerator?

- A) Under charge of refrigerant
C) Defective fan motor (Correct)
B) Over charge of refrigerant
D) Defective timer

71. What is the reason for no cooling in a frost free refrigerator?

- A) Defective fan motor (Incorrect)
C) High watt Cabinet bulb
B) Open door switch
D) Defective timer

72. Why the capillary tube is preferred as an expansion device?

- | | |
|------------------------------------|---|
| A) No system pressure equalising | B) Inexpensive and has no moving parts (Correct) |
| C) Expensive and more moving parts | D) Periodical servicing is required |

73. Which component defrosts in frost free refrigerator?

- | | |
|---------------|----------------------------|
| A) Bulb | B) Heater (Correct) |
| C) Thermostat | D) Capillary tube |

74. Where the thermal bulb is fixed in frost free refrigerator?

- | | |
|---------------------------|---|
| A) Liquid line | B) Discharge line |
| C) Last coil of condenser | D) Last coil of evaporator (Correct) |

75. Which component switches ON/OFF the starting winding in RSIR motor?

- | | |
|---------------------------|--------------|
| A) Thermostat | B) Capacitor |
| C) Relay (Correct) | D) OLP |

76. What is the cut out temperature of bimetal thermo in frost free refrigerator?

- | | |
|---|--------------------------------|
| <u>A) 5 Degree Centigrade (Incorrect)</u> | B) 10 Degree Centigrade |
| C) 20 Degree Centigrade | D) 25 Degree Centigrade |

77. Which domestic system uses automatic defrost?

- | | |
|-----------------------------------|--|
| A) Frost free refrigerator | B) Conventional refrigerator |
| C) Split air - conditioner | <u>D) Window air - conditioner (Incorrect)</u> |

78. Which sheet is used to check the tightness of door gasket of a refrigerator?

- | | |
|-----------|-----------------------------|
| A) Rubber | B) Plastic (Correct) |
| C) Copper | D) Zinc |

79. Which is used to clean the condenser fins of a refrigerator?

- | | |
|--------------------------|------------------------------------|
| A) Painting brush | <u>B) Diluted acid (Incorrect)</u> |
| C) Soap solution | D) Fin comb |

80. How the capacity of refrigerator is expressed?

- | | |
|--------------|-------------------------------|
| A) Weightage | <u>B) Tonnage (Incorrect)</u> |
| C) Wattage | D) Litres |

81. What is the temperature maintained in the refrigerator freezer?

- | | |
|---------------------------|--|
| A) 0 Degree Centigrade | B) - 15 Degree Centigrade (Correct) |
| C) - 45 Degree Centigrade | D) - 65 Degree Centigrade |

82. Where the manually defrosted water is stored in refrigerator?

- | | |
|---|-----------------------------|
| A) Tray on top of the compressor (Correct) | B) Bottom of the evaporator |
| C) Bottom of the condenser | D) Top of the freezer |

83. Which component is used in frost free refrigerator?

- | | |
|--------------------------|----------------------------------|
| A) Plate coil evaporator | B) Liquid receiver |
| C) Oil separator | D) Timer switch (Correct) |

84. Which type of evaporator is used in frost free refrigerator?

- | | |
|----------------------------------|-------------------|
| <u>A) Plate type (Incorrect)</u> | B) Wire mesh |
| C) Finned tube | D) Shell and tube |

85. Which device protects the compressor motor from drawing more current?

- | | |
|-------------------------|----------------|
| A) OLP (Correct) | B) Relay |
| C) Thermostat | D) Door switch |

86. Which device equalizes the system pressure in frost free refrigerator?

- | | |
|------------------------------------|---------------|
| A) Capillary tube (Correct) | B) Compressor |
| C) Condenser | D) Evaporator |

87. Which method of refrigeration system is adopted in frost free refrigerator?

- | | |
|--|----------------------|
| A) Vapour compression (Correct) | B) Vapour absorption |
| C) Water vapour | D) Evacuating |

88. Which electrical control cuts off heating element in frost free refrigerator?

- | | |
|--------------------------|-----------------------------|
| A) Bimetal thermo | B) Thermostat |
| C) Relay | <u>D) Timer (Incorrect)</u> |

89. What is the working condition of component during defrost cycle in frost free refrigerator?

- | | |
|------------------------------------|---|
| A) Evaporator fan motor is running | B) Compressor is not running (Correct) |
| C) Thermostat cuts off | D) Relay activated |

90. Which component actuates the defrost cycle in frost free refrigerator?

- | | |
|-------------------|--------------------------------------|
| A) Bimetal thermo | <u>B) Defrost heater (Incorrect)</u> |
| C) Timer | D) Relay |

91. Which component is turned off while defrost heater is energised?

- | | |
|-----------------|--------------------------|
| A) Cabinet bulb | B) Evaporator fan |
|-----------------|--------------------------|

C) Thermostat sensor
(Incorrect)

D) Over load protector

92. Which movement of plunger energises the start winding in relay operation?

A) Vertically up (Correct)

B) Bottom side

C) Vertically down

D) Horizontally left

93. Which is connected in series with start capacitor in motor circuit?

A) Starting winding

B) Common terminal

C) Running Terminal

D) Running winding
(Incorrect)

94. What is the advantage of sealed system compared to open type system?

A) Mechanical efficiency is greater

B) Cylinder lubrication is easier

C) Any refrigerant can be used

D) No shaft seal is required (Correct)

95. Why frost free model refrigerator takes less freezing time of products?

A) Forced air circulation

B) Natural air circulation

C) Low temperature setting
(Incorrect)

D) High temperature setting

96. What is the reason if refrigerator runs normally but no cooling effect?

A) Leakage of refrigerant (Correct)

B) Condenser block

C) Filter block

D) Over charge

97. What is the effect of bimetal thermo sticks in ON position in frost free refrigerator?

A) Accumulation of frost

B) More cooling (Incorrect)

C) Poor cooling

D) No cooling

98. What is the effect of contamination in refrigeration system?

A) High heating

B) Poor cooling (Correct)

C) Low pressure

D) Low humidity

99. What is the cause for refrigerator door gap at closing position?

A) Uneven floor level (Correct)

B) Either side gap more

C) Either side gap less

D) Uneven condenser level

100. Which component is replaced to prevent air entering the refrigerator cabinet?

A) Thermostat

B) Door gasket (Correct)

C) Door paint

D) Door hinges

101. What is the result if discharge reed is broken in open type compressor?

A) Poor pumping (Incorrect)

B) More pumping

C) Oil pumping

D) No pumping