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Score: 41/100 (41.00%)

Code: 9423

1. What is the unit of heat in M.K.S system?  
A) B.T.U (British thermal unit) **B) K.Cal (Kilo Calorie) (Correct)**  
C) KV (Kilo Volt) D) K.W (Kilo Watt)
2. How the level of heat in a substance is expressed?  
A) Micron B) Pressure  
C) Humidity **D) Temperature (Correct)**
3. Which thermodynamic process the temperature is kept constant?  
A) Isobaric process **B) Isothermal process**  
C) Constant volume process (Incorrect) D) Constant pressure process
4. Which method is used to connect the swaged joint in copper tubes?  
A) TIG welding **B) Silver brazing (Correct)**  
C) Lead soldering D) Fusion welding
5. What is the advantage of using flux in brazing?  
A) Over heating B) Melting tubes  
**C) Prevent Oxidation (Correct)** D) Chemical reaction
6. 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
7. Which device controls the moisture in AC room air?  
**A) Humidistat** B) Hydrometer  
C) Hygrometer **D) Anemometer (Incorrect)**
8. Which part of a central AC system cannot be repaired after pump down operation?  
A) Condenser B) Evaporator  
**C) Liquid receiver (Correct)** D) Expansion device
9. What is the preventive maintenance of cooling tower sump?  
**A) Remove sludge (Correct)** B) Flush with water  
C) Add HCL to water D) Add bleaching powder
10. Why the glass wool insulation is avoided in ducts?  
A) Less strength B) High conductivity  
C) Not resistant to water **D) Allows vapour transmission (Correct)**
11. What is the pH level of water used for final rinsing of condenser tubes after descaling?  
A) 4 to 4.5 **B) 7 to 7.5**  
C) 10 to 12 (Incorrect) D) 9 to 10.5
12. What is the advantage of electrically interlocked circuit for motors and pumps in a chiller plant?  
A) Start the loads non sequentially B) Start the loads when not needed (Incorrect)  
C) Stop the loads when not required **D) Start and stop the loads sequentially**
13. What is the effect if the refrigeration system is started before chilled water pump?  
A) No cooling (Incorrect) B) Water warms in chillier  
**C) Water freezes in chillier** D) Excess of heat transfer
14. What is the remedy for no lubrication even if the sight glass shows proper oil level?  
**A) Replace oil pump** B) Add oil to crankcase  
C) Replace oil pressure gauge (Incorrect) D) Replace oil pressure cut out
15. Which causes the filter drier to become cold in chiller AC plant?  
A) Over charge B) Under charge  
C) High condensing pressure **D) Partial blocking of filter drier (Correct)**
16. What is the cause of high condensing pressure in water cooled condenser?  
A) Lack of lubrication B) Damage condenser fan (Incorrect)  
C) Low load on evaporator **D) Defective cooling water pump**
17. Which part connects the piston with small end of connecting rod in a reciprocating compressor?

**A) Piston pin (Correct)**

C) Piston rings

B) Piston bolt

D) Piston sleeve

C) Automatic expansion valve

D) Thermostatic expansion valve

18. Which is a positive displacement compressor?

A) Centrifugal compressor (Incorrect)

**B) Scroll compressor**

C) Water pump

D) Oil pump

19. What is the revolving part of induction motor?

A) Stator (Incorrect)

**B) Rotor**

C) Relay

D) Winding

20. Which cooling medium is used to cool the motor of a hermetic reciprocating compressor in AC?

A) Discharge vapour

B) Liquid refrigerant (Incorrect)

**C) Suction vapour**

D) Water

21. What is the formula to find out the synchronous speed of induction motor?

A)  $N_s = (150P/f)$  (Incorrect)

**B)  $N_s = (120f/P)$**

C)  $N_s = (150f/P)$

D)  $N_s = (120P/f)$

22. How the difference between the synchronous speed and the actual rotor speed is specified?

A) Lead

B) Lag

**C) Slip (Correct)**

D) Trip

23. What is the reason for poor compression?

A) Less clearance volume (Incorrect)

**B) Scratches on the piston surface**

C) Lapped valve plate and reed seat

D) Good lubrication on the moving parts

24. What is the reason for swash plate compressor failure in car AC?

**A) Oil level is low**

B) Oil level is medium

C) Thermostat not working (Incorrect)

D) Refrigerant charge normal

25. Why the top of dome is hot in a scroll compressor?

**A) Discharge plenum is at top**

B) Suction super heat is less

C) Suction gas not cooled (Incorrect)

D) Undercharged system

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

A) Float valve

**B) Capillary tube (Correct)**

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

**A) Plate evaporator**

B) Tube in tube evaporator

C) Shell and coil evaporator (Incorrect)

D) Shell and tube evaporator

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

**A) Molecular sieve type**

B) Activated alumina

C) Activated carbon (Incorrect)

D) Silica gel

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

A) Temperature balancing is easy

**B) Pressure balancing is easy**

C) Volume balancing is easy

D) Complicate design (Incorrect)

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

A) Discharge line

B) Capillary line

C) Suction line

**D) Liquid line (Correct)**

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

A) Accumulator

**B) Capillary tube (Correct)**

C) Heat exchanger

D) Finned tube condenser

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

A) Moist air

B) Hydrogen

**C) Dry nitrogen (Correct)**

D) Aqua ammonia

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

A) Blower (Incorrect)

B) Door switch

C) Cabinet bulb

**D) Defrost heater**

34. 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

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

**A) The friction between refrigerant and tube**

B) The friction between refrigerant and oil

C) The friction between piston and cylinder (Incorrect)

D) The friction between belt and pulley

A) **Rat tail joint (Correct)**

B) Scarfed joint

C) Britannia joint

D) Western union joint

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

A) Hot water defrosting (Incorrect)

B) Manual defrosting

C) Hot gas defrosting

D) **Electric defrosting**

37. Which set of components are used in FCU?

A) Air filter, blower, condenser

B) Compressor, fan, condenser

C) **Air filter, cooling coil, blower motor (Correct)**

D) Cooling coil, condenser, fan motor

38. Which is circulated in VRV system for cooling cycle?

A) Water

B) Cooled air

C) Cooled brine (Incorrect)

D) **Liquid refrigerant**

39. Why the temperatures of inlet and outlet water in shell and tube condenser are recorded in log sheet?

A) Study about the plant (Incorrect)

B) Judge quality of water

C) Checking the hardness of water

D) **Fix descaling time for condenser**

40. Which parameter of power supply reduces the starting current in VFD motor?

A) Decreased power factor

B) Increased supply voltage

C) **Lower frequency operation (Correct)**

D) Decreased resistance mode

41. Which version of motors are used in ductless multisplit system?

A) Biooptional drive

B) Triooptional drive

C) **Variable frequency drive**

D) Constant frequency drive (Incorrect)

42. Which valve is used to release the non condensable gases from AC plant?

A) **Purge valve**

B) Check valve

C) Service valve (Incorrect)

D) Solenoid valve

43. What is the effect on system performance if the AC system is at undercharged condition?

A) **Poor cooling**

B) Excess cooling (Incorrect)

C) Compressor over loading

D) Compressor trips by HP cut out

44. Which joint is made in either single or multi - strand conductors?

45. Which winding has more inductance in refrigerator compressor motor?

A) **Run (Correct)**

B) Start

C) Common

D) Start and common

46. What is the equivalent of one microfarad in farad?

A) 10<sup>-3</sup> farad

B) 10<sup>-6</sup> farad

C) **10<sup>-9</sup> farad**

D) 10<sup>-12</sup> farad (Incorrect)

47. What is the method of converting AC to DC power supply with two diodes and a step down transformer?

A) Bridge rectifier (Incorrect)

B) **Full wave rectifier**

C) Half wave rectifier

D) Medium wave rectifier

48. Which application uses the digital ICs?

A) Amplifier

B) **Logic gates (Correct)**

C) Tuned circuits

D) Voltage regulator

49. Which extinguishes the fire on electrical equipment?

A) Oil

B) Foam (Incorrect)

C) Water

D) **Halon**

50. What is the equivalent of one micron in millimeter?

A) 0.0001 mm (Incorrect)

B) **0.001 mm**

C) 0.01 mm

D) 0.1 mm

51. Which medium is used to extinguish Class - A fire?

A) CO<sub>2</sub>

B) Foam

C) **Water**

D) Dry powder (Incorrect)

52. What is the least count of a metric micrometer?

A) 0.1 mm

B) **0.01 mm (Correct)**

C) 0.001 mm

D) 0.0001 mm

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

A) Rubber (Incorrect)

B) **Plastic**

C) Copper

D) Zinc

54. 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

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

- A) Plate type  
B) Wire mesh  
**C) Finned tube (Correct)**  
D) Shell and tube

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

- A) Starting winding**  
C) Running Terminal  
B) Common terminal (Incorrect)  
D) Running winding

57. Which instrument measures the humidity of air?

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

58. What is the wet bulb temperature of air if dry bulb temperature is 35 Degree Centigrade and wet bulb depression is 4 Degree Centigrade?

- A) 30 Degree Centigrade  
C) 32 Degree Centigrade  
**B) 31 Degree Centigrade**  
D) 33 Degree Centigrade (Incorrect)

59. How many parameters are needed to locate all properties of moist air in psychrometric chart?

- A) One  
C) Four  
**B) Two (Correct)**  
D) Three

60. What is the velocity pressure of air in a duct if the total pressure and static pressure are known?

- A) Sum of static and total pressures  
C) **Difference in static and total pressures**  
B) Sum of dynamic and total pressures (Incorrect)  
D) Difference in dynamic and total pressures

61. How the space between the false ceiling and the building main ceiling is used in handling of air in central AC plant?

- A) Exhaust duct  
C) **Return air duct**  
B) Fresh air duct (Incorrect)  
D) Supply air duct

62. What is the equivalent of 1 mm of Hg in terms of microns?

- A) 500 (Incorrect)  
C) 1500  
**B) 1000**  
D) 2000

63. Which type of fan blade is used with indoor unit?

- A) Guide vane  
C) Axial  
**B) Blower (Correct)**  
D) Vane|

64. Which fan motor speed is used with outdoor unit in split AC?

- A) Single speed (Correct)**  
B) Double speed

- C) Triple speed  
D) Five speed

65. What is the function of starting capacitor in CSIR motor?

- A) Gives initial torque (Correct)**  
C) Corrects power factor  
B) Gives running torque  
D) Improves energy efficiency

66. What is the advantage of periodical cleaning of air filter?

- A) Decrease the volume of air handling  
C) Decrease the cooling capacity (Incorrect)  
B) Increase the speed of fan motor  
**D) Increase the cooling capacity**

67. Which is the mounting location of evaporator in ductable split unit?

- A) Floor mounting  
C) **Ceiling mounting (Correct)**  
B) Wall mounting  
D) Roof mounting

68. What is the cause for noisy fan motor in outdoor unit of split AC?

- A) Bearing worn out**  
C) Shaft struck  
B) Motor Burnt  
D) Blade bent (Incorrect)

69. What is the cooling capacity for 1.5 Ton of ductable split air conditioner?

- A) 3500 Kcal/hr  
C) **4500 Kcal/hr**  
B) 4000 Kcal/hr (Incorrect)  
D) 5000 Kcal/hr

70. What is the diameter of liquid line used with 5 TR if the suction line is 7/8 OD by up flow?

- A) 1/2? OD**  
C) 3/8 ? OD  
B) 5/16 ? OD  
D) 3/4 ?OD (Incorrect)

71. What is the advantage of ductable air conditioner over window air conditioner?

- A) Higher cost  
C) **Silent operation (Correct)**  
B) Noisy operation  
D) Needs more space

72. What is the use of anemometer?

- A) Check water flow  
C) Produce current  
**B) Measure air flow (Correct)**  
D) Measure voltage

73. What is the effect of longer suction and liquid piping in AC?

- A) No pressure rise  
C) Less pressure drop  
**B) More pressure drop**  
D) Medium pressure rise (Incorrect)



93. Which is the mounting location of evaporator in ductable split unit?

- A) Floor mounting
- B) Wall mounting
- C) Ceiling mounting (Correct)**
- D) Roof mounting

94. What is the effect on defective thermostat sensor in split AC?

- A) Unit consumes less power
- B) Increases super heat
- C) AC unit runs continuously (Correct)**
- D) Relay malfunctions

95. What is the colour of acetylene hose pipe in oxy - acetylene welding set?

- A) Maroon**
- B) Green (Incorrect)
- C) Black
- D) Red

96. Which material is used to make electrode holder for welding?

- A) Steel
- B) Cast iron
- C) Cast iron
- D) Copper alloy (Correct)**

97. What is the purpose of using goggles during chipping the

slag from weld bead?

- A) To protect eyes (Correct)**
- B) To protect hand
- C) To protect leg
- D) To protect head

98. 1 Which control device is used to maintain the room air temperature?

- A) OLP
- B) Relay
- C) Thermostat (Correct)**
- D) Selector switch

99. What is the cause of reduced supply air throw though air filter is clean in window AC?

- A) No frost in the evaporator
- B) Frost accumulated in the evaporator**
- C) Dust accumulated in the condenser (Incorrect)
- D) No dust accumulated in the evaporator

100. What is the effect of sensing higher temperature by thermistor NTC?

- A) Resistance increases
- B) Resistance decreases (Correct)**
- C) Resistance becomes zero
- D) Resistance becomes infinity