



C) Resistance start induction run  
D) Permanent capacitor

A) Liquid receiver  
B) Accumulator  
C) Evaporator  
D) Condenser

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

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

27. Which international agency standardises the numbering system for identifying refrigerants?

A) DW142  
B) ISHRAE  
C) ISO  
D) ASHRAE

18. What is the cause of high condensing pressure in water cooled condenser?

A) Defective cooling water pump  
B) Damage condenser fan  
C) Low load on evaporator  
D) Lack of lubrication

28. 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  
B) 32 Degree Centigrade  
C) 33 Degree Centigrade  
D) 31 Degree Centigrade

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

A) Hydrogen  
B) Dry nitrogen  
C) Aqua ammonia  
D) Moist air

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

A) Filter block  
B) Over charge  
C) Leakage of refrigerant  
D) Condenser block

20. Which instrument is used to measure the total pressure in an air duct?

A) Anemometer  
B) Velocimeter  
C) Pitot tube manometer  
D) Hygrometer

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

A) Five speed  
B) Triple speed  
C) Single speed  
D) Double speed

21. What is the function of remote control in split AC?

A) Drain water control  
B) Humidity setting  
C) Transmits signal to operate AC  
D) Pressure setting

31. What is the purpose of air filter?

A) Cool air  
B) Improve performance  
C) Ensure clean air  
D) Circulate air

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

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

32. What is starving in extinguishing the fire?

A) Stop the supply of oxygen  
B) Adding fuel  
C) Clearing the hazards  
D) Removal of fuel

23. Which instrument is used to measure the velocity pressure of air in ducting system?

A) Nanometer  
B) Barometer  
C) Bourdeon tube  
D) Pitot tube

33. Which type of fan motor is used in window air conditioner?

A) Three phase double end shaft motor  
B) Three phase single shaft motor  
C) Single phase single shaft motor  
D) Single phase double end shaft motor

24. Which components are used in AHU of central AC plant?

A) Condenser, Fan, Compressor  
B) Air filter, Compressor, Condenser  
C) Blower, Air filter, Evaporator  
D) Evaporator, Compressor, Blower

34. Which material is used for making service valve?

A) Stainless steel  
B) Aluminium  
C) Brass  
D) Cast iron

25. Which part of the working refrigeration system, the non condensable accumulate?

A) Evaporator outlet  
B) Compressor crankcase  
C) Top of condenser  
D) Accumulator

35. Which component rejects the maximum heat to ambient air in refrigerator?

A) Expansion valve  
B) Evaporator  
C) Condenser  
D) Compressor

26. Where the liquid refrigerant is stored in multi split Air-conditioner during pump down operation?

36. How many fan motors are used in split AC?

A) Two  
B) Four

C) Three

D) Five

**37.** What is the percentage range of silver in copper to copper pipes brazing rod?

A) 60 to 100%

B) 35 to 45%

C) 20 to 35%

D) 45 to 60%

**38.** What is meant by total pressure in a duct?

A) Velocity pressure + suction pressure

B) Suction pressure + discharge pressure

C) Velocity pressure - static pressure

D) Static pressure + velocity pressure

**39.** Which electronic component senses the temperature in indoor unit of VRV system?

A) Thermistor

B) Transistor

C) Thyristor

D) Resistor

**40.** Which gauge is connected to the AC plant system before doing pump down operation?

A) Oil pressure gauge

B) Water pressure gauge

C) Compound gauge

D) High pressure gauge

**41.** How the indoor unit acts during heating cycle of heat pump?

A) Evaporator

B) Condenser

C) Expansion device

D) Electrical heater

**42.** Which tool is used for service valve operations in package AC?

A) Double end spanner

B) Screw spanner

C) Ratchet key/wrench

D) Cutting pliers

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

A) Forced air circulation

B) Natural air circulation

C) High temperature setting

D) Low temperature setting

**44.** What is the area of room cooled by 1ton window air conditioner?

A) 5000 sq.ft

B) 3000 sq.ft

C) 1000 sq.ft

D) 2000 sq.ft

**45.** Which gas is produced by the chemical reaction of carbide and water?

A) Nitrogen

B) Carbon dioxide

C) Oxygen

D) Acetylene

**46.** Which position is safe for storing refrigerant cylinder?

A) Inclined

B) Upside down

C) Upright

D) Horizontal

**47.** Which capacitor is connected in series with starting winding of CSR motor during operation?

A) Run capacitor

B) Start capacitor

C) Fan capacitor

D) No capacitor is connected

**48.** What is the minimum temperature difference in water required between inlet and outlet of water cooled condenser?

A) 20 Degree Centigrade

B) 15 Degree Centigrade

C) 5 Degree Centigrade

D) 10 Degree Centigrade

**49.** Which is eliminated from the system in vacuumising process?

A) Pressure

B) Humidity

C) Temperature

D) Moisture

**50.** Which components are connected by metering device in vapour compression cycle?

A) Evaporator and suction line

B) Compressor and condenser

C) Compressor and evaporator

D) Condenser and evaporator

**51.** Which tool is used for trimming the edges of a sheet metal cylinder?

A) Scissors

B) Bent snips

C) Straight snips

D) Tube cutter

**52.** Which refrigerant is used in domestic refrigerator?

A) R 407 c

B) R 22

C) R 134 a

D) R 32

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

A) 150 p.s.i.a

B) 140 p.s.i.a

C) 160 p.s.i.a

D) 130 p.s.i.a

**54.** Which type of AC system is operated by VRV system?

A) Package AC

B) Indirect ACs

C) Central plant AC

D) Multizone split ACs

**55.** Which winding has low resistance in resistance start induction run motor?

A) Common winding

B) Running winding

C) Auxiliary winding

D) Starting winding

**56.** Which safety switch deactivates the compressor motor circuit if suction pressure falls below the safe limit in package AC?

- A) Selector switch                      B) Dual pressure switch  
C) High pressure switch                D) Low pressure switch

57. What is the use of suction baffle in a scroll compressor?

- A) Increase noise of compressor                      B) Reduce capacity of compressor  
C) Reduce noise of compressor                      D) Allow liquid to enter into compressor

58. What is the human body temperature in Degree Centigrade?

- A) 47 Degree Centigrade                      B) 27 Degree Centigrade  
C) 17 Degree Centigrade                      D) 37 Degree Centigrade

59. Which material is used for making disc in energy meter?

- A) Copper                                      B) Aluminium  
C) Brass                                        D) Zinc

60. What is the effect of increased out door temperature in car AC?

- A) Performance remains the same                      B) Compressor runs less time  
C) Compressor runs more time                      D) Performance increases

61. Which type of compressor is used as a vacuum pump?

- A) Centrifugal                                B) Reciprocating  
C) Scroll                                        D) Rotary

62. What is the effect of sludge in car AC?

- A) Closes the orifice of capillary                      B) Blocks the orifice of AEV  
C) Chokes the orifice of TEV                      D) Closes the orifice of TEEV

63. What is the advantage of glass fibre ducting?

- A) Economical                                B) Self insulating  
C) High heat transfer                      D) Heavy weight

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

- A) Solid                                        B) Vapour  
C) Semi solid                                D) Liquid

65. Which is a positive displacement compressor?

- A) Scroll compressor                      B) Oil pump  
C) Centrifugal compressor                      D) Water pump

66. Which component is used in frost free refrigerator?

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

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

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

68. Which bearing is used in condenser motor of outdoor unit in ductable multi split air conditioner?

- A) Thrust bearing                              B) Ball bearing  
C) Sleeve bearing                              D) Open ball bearing

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

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

70. What is the differential of control switch if it cuts in at 29 kg/cm<sup>2</sup> and cuts out at 34 kg/cm<sup>2</sup>?

- A) 15 kg / cm<sup>2</sup>                              B) 20 kg / cm<sup>2</sup>  
C) 10 kg / cm<sup>2</sup>                              D) 5 kg / cm<sup>2</sup>

71. What is the reason for switching contacts get carbonised in package AC electrical wiring?

- A) Humidity                                      B) Loose connections  
C) Too tight connection                      D) Quality is bad

72. What is the remedy to remove moisture from the window AC system?

- A) Clean the evaporator fins                      B) Evacuate the system deeply  
C) Clean the condenser fins                      D) Over gas charge in the system

73. What are the passive components used in electronic circuits?

- A) Resistors, capacitors and inductors                      B) Transformers and semiconductors  
C) Transistors, diodes and SCRs                      D) Semi conductors and transistors

74. Which type of switch is used to control the room air temperature in split AC?

- A) Manual switch                              B) Thermal relay  
C) Over load protector                      D) Thermostat switch

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

- A) Prevents surging of refrigerant                      B) Improves oil circulation

C) Prevents liquid flood back to compressor  
D) Avoids hunting of refrigerant

C) Lubricate the heat exchangers  
D) Lubricate the clutch assembly

76. Which valve is used in capacity control system employing hot gas bypass?

- A) Safety valve  
B) Reversing valve  
C) Relief valve  
D) Solenoid valve

85. Which meter indicates the true power directly in an electrical circuit?

- A) Ohm meter  
B) Watt meter  
C) Ammeter  
D) Volt meter

77. How numerical designations of inorganic refrigerants are assigned?

- A) Subtracting 700 from molecular mass of compound  
B) Adding 700 to molecular mass of compound  
C) Multiply 700 to molecular mass of compound  
D) Divide 700 to molecular mass of compound

86. Which switch is interlocked to become on if the power isolator is off in package AC?

- A) Compressor starting  
B) Blower motor  
C) Thermostat  
D) Crankcase heater

78. Why the crankcase heater is energised for compressor during the shut down period of AC plant?

- A) Increase miscibility of oil with refrigerant  
B) Decrease viscosity of crankcase oil  
C) Prevent oil foaming on restarting compressor  
D) Increase viscosity of crankcase oil

87. Which tool is used to straighten the deformed fins of air cooled condenser?

- A) Wire brush  
B) Brass brush  
C) Blower  
D) Fin comb

79. How to change the direction of rotation in 3 Phase induction motor?

- A) Change neutral  
B) Change all phase  
C) Change the winding only  
D) Change any two phase

88. What is the reason for intermittent cooling cycle in car AC?

- A) Moisture in the system  
B) Non condensables in the system  
C) Fully evacuated system  
D) Excess of lubricant in receiver

80. Which control trips if the expansion valve inlet strainer is blocked in chiller AC plant?

- A) Low pressure cut out  
B) Thermostat control  
C) Oil pressure cut out  
D) High pressure cut out

89. What is the effect of improper alignment of machines while installing a central AC plant?

- A) Excess of wear and tear  
B) Less noise and vibration  
C) Less power consumption  
D) Silent operation

81. Which type of rotor is used in 3 Phase induction motor?

- A) Shaded pole rotor  
B) Solid rotor  
C) Laminated rotor  
D) Squirrel cage rotor

90. Which is the common terminal while Ohm meter reads  $AB = 10 \text{ Ohm}$ ,  $AC = 15 \text{ Ohm}$  and  $BC = 25 \text{ Ohm}$  if the motor terminals are A, B and C?

- A) Terminal C  
B) Terminal A  
C) Terminal B  
D) Earth Terminal

82. Which type of condenser is used in window air conditioner?

- A) Bare tube  
B) Plate and coil  
C) Fins and tube  
D) Plate and tube

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

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

83. How electrons flow in a battery circuit?

- A) Negative polarity to positive polarity  
B) Positive to negative polarity  
C) Phase to neutral  
D) Phase to earth

92. Which winding of compressor motor is directly connected across voltage relay coil?

- A) Main winding  
B) Running winding  
C) Starting winding  
D) Auxiliary winding

84. Why the miscibility of refrigerant and oil is preferred in car AC?

- A) Circulate oil back to compressor  
B) Lubricate the moving parts of TEV

93. What is the use of a starting capacitor in single phase induction motor?

- A) Increase starting torque  
B) Improve power factor

C) Decrease starting torque      D) Dis connect starting winding

A) Forward curved fan  
C) Centrifugal fan

B) Propeller fan  
D) Radial fan

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

A) Cabinet bulb      B) Blower  
C) Door switch      D) Defrost heater

98. Which control opens the compressor motor circuit in the event of continuous overload?

A) Fusible plug      B) Spring loaded relief valve  
C) Thermostat      D) Bimetal strip

95. What is the velocity range of air circulated in car AC?

A) 9 - 10 m / sec      B) 2 - 3 m / sec  
C) 7 - 9 m / sec      D) 5 - 7 m / sec

99. Which process is done first in split AC for shifting from one place to another?

A) Flushing      B) Vacuumisation  
C) Evacuation      D) Pump down

96. Which device controls the air flow in ducting system?

A) Diffuser      B) Grille  
C) Damper      D) Register

100. Which evaporator is known as extended surface evaporator?

A) Bare tube evaporator      B) Finned evaporator  
C) Coiled stake evaporator      D) Evaporator tubes

97. Which fan is used in condensing unit of ductable split air conditioner?