

Duration: 60 Mins

Total Marks: 90

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Student Name: _____	Roll No: _____
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1. Which two tubes act as heat exchanger in a refrigerator?

- A) Suction and charging tube B) Capillary and suction tube
C) Discharge and capillary tube D) Discharge and suction tube

2. 1 Which control device is used to maintain the room air temperature?

- A) OLP B) Thermostat
C) Relay D) Selector switch

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

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

4. What is the value of starting capacitor used for 1TR window air conditioner?

- A) 60 MFD B) 100 MFD
C) 80 MFD D) 40 MFD

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

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

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

- A) Mechanical efficiency is greater B) Cylinder lubrication is easier
C) No shaft seal is required D) Any refrigerant can be used

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

- A) Plastic B) Copper
C) Zinc D) Rubber

8. What is the name of heat carrying medium in vapour compression system?

- A) Air B) Refrigerant
C) Liquid D) Water

9. What is the cooling capacity of 0.5 TR in BTU / hr?

- A) 18000 B) 24000
C) 12000 D) 6000

10. Which material is used for making fins of condenser in a window air conditioner?

- A) Brass B) Cast iron
C) Aluminium D) Copper

11. Which type of evaporator is used in window air conditioner?

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

12. What is the remedy for the defective OLP in a window air conditioner?

- A) Repair the heater element B) Remove the parts
C) Repair the OLP D) Replace the OLP

13. Which is increased by the fins of condenser tubes in window air conditioner?

- A) Discharge pressure B) Power consumption
C) Refrigerant flow rate D) Heat transfer rate

14. What is the reason for the compressor does not start but the fan motor works normally in window AC?

- A) Defective fan motor B) Defective compressor motor
C) Defective blower D) Defective fan capacitor

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

- A) Horizontally left B) Vertically up
C) Vertically down D) Bottom side

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

- A) 5000 sq.ft B) 1000 sq.ft
C) 3000 sq.ft D) 2000 sq.ft

17. What is the reason for Compressor does not start ?

- A) Defective fresh air damper
- B) Defective OLP
- C) Defective fan motor
- D) Defective oscillation motor

18. Which part of window AC removes dust particles from the room air?

- A) Filter drier
- B) Dehydrator
- C) Air filter
- D) Strainer

19. Which safety device is used for compressor motor in window air conditioner?

- A) Starting capacitor
- B) Running capacitor
- C) Relay
- D) Over load protector

20. How the potential relay coil is connected internally to the relay terminals?

- A) 2 and 4
- B) 5 and 2
- C) 5 and 1
- D) 5 and 4

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

- A) Relay
- B) Thermostat
- C) OLP
- D) Door switch

22. What is the value of starting capacitor used for 1.5TR capacity window air conditioner?

- A) 40 to 60 MFD
- B) 80 to 100 MFD
- C) 150 to 160 MFD
- D) 130 to 150 MFD

23. Which type of expansion valve is used in window air conditioner?

- A) Thermostatic expansion valve
- B) Automatic expansion valve
- C) Capillary tube
- D) Low side float valve

24. Which process absorbs heat from the cabinet in refrigerator?

- A) Expansion
- B) Evaporation
- C) Compression
- D) Condensation

25. Which winding has high inductance value in CSR compressor motor?

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

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

- A) Poor cooling
- B) Low humidity
- C) High heating
- D) Low pressure

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

- A) Compressor
- B) Condenser
- C) Evaporator
- D) Capillary tube

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

- A) Thermostat sensor
- B) Evaporator fan
- C) Cabinet bulb
- D) Over load protector

29. Which capacity of fan motor is used in 1Ton window air conditioner?

- A) 1/20 HP
- B) 1/5 HP
- C) 1/10 HP
- D) 1/16 HP

30. What is the purpose of operating the fan motor first and then the compressor motor in Air conditioners?

- A) Stop the high starting current by both motors
- B) Cool the compressor by fan
- C) Minimise the noise of motors
- D) Cool the coils first by fan

31. Which stabilizer capacity is used for 1 Ton window air conditioner?

- A) 3 KVA
- B) 5 KVA
- C) 2 KVA
- D) 4 KVA

32. Which type of motor drive is used in hermetic compressor in refrigerator?

- A) Gear drive
- B) Push drive
- C) Direct drive
- D) Belt drive

33. 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

34. What is the reason for Very high condenser temperature in a window air conditioner?

- A) Fan motor working in good condition
- B) More air flows into the condenser
- C) Water splashes condenser
- D) Dust accumulated in the condenser fins

35. Where the normally closed contacts are internally connected in voltage relay?

- A) Across 1 and 5
- B) Across 2 and 5
- C) Across 2 and 4
- D) Across 1 and 2

36. How to neutralise the concentration of leaked ammonia from air

- A) Shut down the plant
- B) Recover ammonia from air

C) Spray Hydrochloric acid D) Spraying a lot of water

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

A) 10 Degree Centigrade B) 20 Degree Centigrade
C) 25 Degree Centigrade D) 5 Degree Centigrade

38. Which gas is used for pressurising and testing leakage of RAC system?

A) N₂ B) SO₂
C) O₃ D) O₂

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

A) No capacitor is connected B) Fan capacitor
C) Run capacitor D) Start capacitor

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

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

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

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

42. 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

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

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

44. What is the minimum distance to be maintained between the wall and refrigerator condenser?

A) 15 cm B) 18 cm
C) 22 cm D) 13 cm

45. Which method is used to check the leakage of hydro fluoro carbon refrigerants?

A) Electric torch B) Litmus paper
C) Electronic leak detector D) Sulphur candles

46. Which refrigerant is used in domestic refrigerator?

A) R 32 B) R 134 a
C) R 22 D) R 407 c

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

A) Painting brush B) Fin comb
C) Diluted acid D) Soap solution

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

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

49. What is the function of refrigerant fluid in a refrigerator?

A) Absorbs heat from outside the cabinet B) Releases heat inside the cabinet
C) Absorbs heat from bottom side cabinet D) Absorbs heat from inside the cabinet

50. What is the resistance level of start winding in a refrigerator s compressor motor?

A) High resistance B) Low resistance
C) Zero resistance D) Medium resistance

51. Which type of compressor is used in window air conditioner?

A) Belt drive B) Sealed type
C) Swash plate D) Open type

52. What is the reason for excessive frost on evaporator coil in window AC?

A) Evaporator fins not blocked by dust B) Blower rotating at higher speed
C) More air circulation in evaporator D) Air filter blocked completely

53. Which component is used in frost free refrigerator?

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

54. How does the evaporator frost affect the sub zero temperature thermally in refrigerator?

A) As conductor B) As insulator
C) As convector D) As radiator

55. What is the capacity of compressor motor used in 1Ton window air conditioner?

A) 1.00 HP B) 0.75 HP
C) 0.95 HP D) 0.50 HP

56. What is the full form of the relay - PTC?

- A) Positive temperature coefficient
- B) Polar terminal checking
- C) Positive terminal circuit
- D) Permanent temperature control

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

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

58. Which part of the refrigerator cools the liquid refrigerant in capillary tube?

- A) Evaporator
- B) Suction line
- C) Condenser
- D) Discharge line

59. What is the value of running capacitor used for 1.5 TR window air conditioner?

- A) 36 MFD
- B) 40 MFD
- C) 80 MFD
- D) 100 MFD

60. What is the purpose of relay used in window air conditioner?

- A) Disconnect the running capacitor
- B) Disconnect the fan capacitor
- C) Disconnect the winding
- D) Disconnect the starting capacitor

61. Which material is used to make the evaporator of refrigerator?

- A) Stainless steel
- B) Brass
- C) Aluminium
- D) Galvanised iron

62. How the zeotropic refrigerant is taken from the cylinder for charging it into RAC system?

- A) Liquid state
- B) Super heated vapour
- C) Vapour and liquid
- D) Vapour state

63. Where the relay coil is internally connected in voltage relay?

- A) Across 2 and 4
- B) Across 5 and 2
- C) Across 1 and 2
- D) Across 5 and 1

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

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

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

- A) Relay activated
- B) Thermostat cuts off

- C) Evaporator fan motor is running
- D) Compressor is not running

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

- A) Capacitor
- B) Thermostat
- C) Relay
- D) OLP

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

- A) Timer
- B) Defrost heater
- C) Bimetal thermo
- D) Relay

68. Which is the hydrocarbon refrigerant?

- A) R123
- B) R 12
- C) R 600a
- D) R 500

69. What is the cooling capacity of 1 TR in K Cal / hr?

- A) 4000
- B) 5000
- C) 3000
- D) 6000

70. Which two terminals read the highest resistance while testing refrigerator compressor motor?

- A) Common and run
- B) Start and run
- C) Start and compressor body
- D) Start and common

71. Which device is used to exhaust the room air in window AC?

- A) Air filter
- B) Filter drier
- C) Damper
- D) Air washer

72. Which component defrosts in frost free refrigerator?

- A) Thermostat
- B) Capillary tube
- C) Bulb
- D) Heater

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

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

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

- A) Low temperature setting
- B) Natural air circulation
- C) Forced air circulation
- D) High temperature setting

75. Where the filter drier is installed in window AC refrigerant circuit?

- A) Liquid line
- C) Discharge line

- B) Service line
- D) Suction line

- C) Bottom of the evaporator
- D) Bottom of the condenser

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

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

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

- A) Uneven condenser level
- C) Either side gap less
- B) Either side gap more
- D) Uneven floor level

78. What is the reason for the compressor motor burn out in a window air conditioner?

- A) Defective OLP
- C) Defective fan capacitor
- B) Defective fan motor
- D) Defective blower

79. Which refrigerant blend is highly flammable?

- A) HC
- C) HFC
- B) CFC
- D) HCFC

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

- A) Door gasket
- C) Thermostat
- B) Door hinges
- D) Door paint

81. What is the reason for filter drier sweating in refrigerator?

- A) Oil in the system
- C) Nitrogen in the system
- B) Moisture in the system
- D) Oxygen in the system

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

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

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

- A) Top of the freezer
- B) Tray on top of the compressor

84. What is the fault in compressor motor if there is electrical continuity between the dome and motor terminal?

- A) Grounded compressor motor
- C) Shorted run winding
- B) Shorted start winding
- D) Open common terminal

85. What is ensured before removing a leaky evaporator in a refrigerator?

- A) Recharge refrigerant to the system
- C) Removal of the thermostat sensor
- B) Pressurize the system with refrigerant
- D) Check the drain tray of evaporator

86. Which relay is used in capacitor start, capacitor run (CSR) compressor motor?

- A) Voltage relay
- C) Amperage relay
- B) Thermal relay
- D) Current relay

87. Which refrigerant is highly flammable?

- A) HCFC - Hydro chloro fluoro carbon
- C) HFC - Hydro fluoro carbon
- B) HC - Hydro carbon
- D) CFC - Chloro fluoro carbon

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

- A) Relay
- C) Thermostat
- B) Timer
- D) Bimetal thermo

89. Which is indicated by the arrow mark on filter drier component?

- A) Flow direction of air
- C) Position of capillary tube
- B) Flow direction of refrigerant
- D) Arrangement of desiccant and filter

90. What is the effect of bimetal thermo stuck in ON position in frost free refrigerator?

- A) More cooling
- C) No cooling
- B) Accumulation of frost
- D) Poor cooling