

ITI Quiz - 10-Jun-2026

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Q. ID: ITISKILL3878QW

June 2026

Question Paper

Duration: 30 Mins

Total Marks: 78

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Student Name: _____ Roll No: _____

1. What is the purpose of providing gas ballast in two stage rotary vacuum pump?

- A) Avoid condensation of refrigerant
- B) Avoid condensation of water vapour
- C) Prevent condensation of dry air
- D) Prevent condensation of nitrogen

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

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

3. 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
- B) 3/8 ? OD
- C) 3/4 ?OD
- D) 5/16 ? OD

4. Which device equalizes the pressure between low and high side of split AC during ?OFF? cycle?

- A) Suction tube
- B) Discharge tube
- C) Copper tube
- D) Capillary tube

5. Which control switch is connected in series with magnetic clutch in Car AC wiring?

- A) Thermostatic expansion valve
- B) Piston pin
- C) Thermostat control
- D) Automatic expansion valve

6. Which component belongs to indoor unit of split AC?

- A) Condenser
- B) Compressor
- C) Evaporator
- D) Drier

7. Which safety control is electrically connected in series with magnetic clutch of compressor in car AC?

- A) HPC
- B) AEV
- C) EEV
- D) TEV

8. Why the idler pulley is used in belt driven car AC?

- A) Decrease the belt vibration
- B) Decrease the belt tension

- C) Increase the feathering
- D) Increase the belt tension

9. What is the use of anemometer?

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

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

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

11. What is the effect of operating the compressor under 5 of Hg vacuum during pump down process?

- A) Prevent motor damage in dome
- B) Pumps oil to condenser
- C) Prevent piston damage
- D) Prevent leakage in service valve

12. What type of material is used to support the tubes on both sides of air cooled condenser?

- A) Mild steel sheet
- B) Aluminium sheets
- C) Copper sheets
- D) Galvanised iron sheets

13. Which valve helps to attend mechanical faults without wasting the gas in split AC?

- A) Float valve
- B) Gate valve
- C) Expansion valve
- D) Service valve

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

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

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

- A) Floor mounting
- B) Ceiling mounting
- C) Wall mounting
- D) Roof mounting

16. Which material is used for making service valve?

- A) Brass
- B) Aluminium

C) Cast iron	D) Stainless steel
17. Which causes the clogged orifice in TEV of car AC system?	
A) Moisture	B) Oxygen
C) Nitrogen	D) Non condensable gases
18. Which motor is used to drive the condenser fan of outdoor unit in ductable split air conditioner?	
A) Permanent split motor (PSC)	B) Three phase induction motor
C) Shaded pole motor	D) Capacitor start capacitor run motor
19. What is ensured before starting a vacuum pump?	
A) Weight of vacuum pump	B) Correct oil level
C) Capacity of the pump	D) Available ac power supply
20. What tonnage capacity of split AC unit uses 150/200 MFD starting capacitor?	
A) 2.0 TR	B) 1 TR
C) 1.5 TR	D) 2.5 TR
21. Where the liquid refrigerant is stored in multi split Air-conditioner during pump down operation?	
A) Evaporator	B) Condenser
C) Accumulator	D) Liquid receiver
22. What is ensured before mounting condenser in car AC?	
A) Accessibility for future service	B) Condenser in line with car radiator
C) Condenser top line to TEV inlet	D) Condenser bottom line to discharge line
23. What is the differential of control switch if it cuts in at 29 kg/cm ² and cuts out at 34 kg/cm ² ?	
A) 15 kg / cm ²	B) 20 kg / cm ²
C) 10 kg / cm ²	D) 5 kg / cm ²
24. What is the advantage of multi split air conditioners?	
A) two outdoor units for one indoor unit	B) Several outdoor units for one indoor unit
C) One outdoor unit for several indoor units	D) One outdoor unit for one indoor unit
25. Which type of switch is used to control the room air temperature in split AC?	
A) Manual switch	B) Thermostat switch
C) Thermal relay	D) Over load protector

26. Where the refrigerant is stored in split AC during pump down operation?	
A) Accumulator	B) Condenser
C) Evaporator	D) Compressor
27. Which bearing is used in blower motor of indoor unit in ductable split air conditioner?	
A) Thrust bearing	B) Open ball bearing
C) Sleeve bearing	D) Ball bearing
28. Which refrigerant control is used in car AC?	
A) Thermostatic expansion valve	B) Automatic expansion valve
C) Hand shut off valve	D) Thermal electric expansion valve
29. What is the advantage of inverter split AC?	
A) Low energy efficiency	B) Eliminates compressor
C) Current drawn is high	D) High energy efficiency
30. What type of compressor motor is used in inverter split AC?	
A) Centrifugal compressor motor	B) Variable speed motor
C) Open type compressor motor	D) Constant speed compressor motor
31. Which level of vacuum is required before charging HFC 134a in car AC?	
A) 200 micron	B) 400 micron
C) 500 micron	D) 300 micron
32. Which process is done first in split AC for shifting from one place to another?	
A) Pump down	B) Vacuumisation
C) Evacuation	D) Flushing
33. What is the velocity range of air circulated in car AC?	
A) 9 - 10 m / sec	B) 5 - 7 m / sec
C) 7 - 9 m / sec	D) 2 - 3 m / sec
34. What is the maximum TR capacity operated with Single phase AC supply?	
A) 2.0 TR	B) 1.00 TR
C) 5 TR	D) 1.5 TR
35. What is the cause of water leakage in indoor unit of multi split AC?	
A) Drain line not properly installed	B) Over flow of water from cooling tower sump

- | | | | |
|-------------------------|-----------------------------------|------------------------------------|--------------------------------|
| C) Efficient water pump | D) Condenser water pump defective | C) Permanent split capacitor motor | D) Three phase induction motor |
|-------------------------|-----------------------------------|------------------------------------|--------------------------------|

36. What is the reason for no cooling effect in car AC?

- | | |
|--------------------------|---------------------------|
| A) Refrigerant leaked | B) Moisture in the system |
| C) Excess of refrigerant | D) Air in the system |

37. Which is the source of drive for compressor shaft in car AC?

- | | |
|-----------------|--------------------|
| A) Blower fan | B) Condenser fan |
| C) Engine shaft | D) Magnetic clutch |

38. Where the filter drier is installed in a car AC system?

- | | |
|-----------------|-------------------|
| A) Service line | B) Suction line |
| C) Liquid line | D) Discharge line |

39. Which device engages the compressor shaft in car AC?

- | | |
|----------------------|----------------------------|
| A) Car engine pulley | B) Over load protector |
| C) Thermo switch | D) Electro magnetic clutch |

40. Why CFC 12 system is replaced by HFC 134a system in car AC?

- | | |
|---------------------|-----------------|
| A) GWP becomes zero | B) Increase ODP |
| C) ODP becomes zero | D) Increase GWP |

41. Which component belongs to outdoor unit of split AC?

- | | |
|---------------|--------------------|
| A) Air filter | B) Blower |
| C) Compressor | D) Evaporator coil |

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

- | | |
|-----------------------|------------------|
| A) Forward curved fan | B) Propeller fan |
| C) Centrifugal fan | D) Radial fan |

43. How many speed selection is used with indoor air blower in ductable multi split AC?

- | | |
|-----------------|------------------|
| A) Four - speed | B) Three - speed |
| C) Two - speed | D) One - speed |

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

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

45. Which motor is used to drive the blower of indoor unit in ductable split air conditioners?

- | | |
|--|----------------------|
| A) Capacitor start capacitor run motor | B) Shaded pole motor |
|--|----------------------|

46. Which horizontal distance is preferred between indoor and outdoor units in ductable split AC installation?

- | | |
|--------------|--------------|
| A) 15 meters | B) 25 meters |
| C) 12 meters | D) 20 meters |

47. Which part of car AC compressor actuates the piston directly?

- | | |
|---------------------|-----------------------------------|
| A) Blower unit | B) Swash plate |
| C) Rotor and stator | D) Crank shaft and connecting rod |

48. What is the cause for noise in indoor unit of a multi split air conditioner?

- | | |
|---------------------------|----------------------------|
| A) Blower is loosened | B) Running current is high |
| C) Compressor not working | D) Refrigerant leak |

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

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

50. Which material is used to make ducts in split AC?

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|--------------|-------------|
| A) Fibre | B) Wood |
| C) Thermocol | D) GI sheet |

51. How long the filter drier unit is used in car AC?

- | | |
|------------|------------|
| A) 2 years | B) 4 years |
| C) 1 year | D) 3 years |

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

- | | |
|----------|---------|
| A) Two | B) Five |
| C) Three | D) Four |

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

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

54. Which is sensed by TEV in response to heat load variation?

- | | |
|-------------------------------|----------------------------|
| A) Evaporating temperature | B) Discharge temperature |
| C) Super heat in suction line | D) Sub cool in liquid line |

55. Which device switches ON/OFF the car AC compressor?

- | | |
|--------------------|------------------|
| A) Magnetic clutch | B) Crank shaft |
| C) Blower unit | D) Rotor winding |

56. What is the reason for air conditioner running continuously but no cooling effect ?

- A) Condensation poor
- B) Over charged oil
- C) Refrigerant is more
- D) Refrigerant leaked

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

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

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

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

59. What is the reason for sweating of water on drier filter?

- A) Partially choked drier filter
- B) Dust accumulated on condenser
- C) More air flows through the evaporator
- D) Air filter blocked

60. What is indicated by the bubbles in car AC's sight glass?

- A) Pressure of air
- B) Shortage of refrigerant
- C) Excess of refrigerant
- D) Poor compression

61. What are the multi speed of blower motor used in indoor unit of ductable split air conditioner?

- A) Low - 900 rpm, medium - 950rpm, high - 1100 rpm
- B) Low - 500 rpm, medium - 550rpm, high - 720 rpm
- C) Low -1000 rpm, medium -1200rpm, high -1350 rpm
- D) Low - 800 rpm, medium - 850rpm, high - 920 rpm

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

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

63. What is the cause of reduction in fan's air flow?

- A) Supply voltage is normal
- B) Fan capacitor is weak
- C) Leak in the system
- D) Refrigerant under charge

64. What is the reason for poor cooling effect in multi split air conditioner?

- A) Proper condensation
- B) Efficient compressor
- C) Dirty air filter
- D) Good insulation

65. What is the test pressure of condenser coils during manufacture?

- A) 350 psig
- B) 450 psig
- C) 150 psig
- D) 250 psig

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

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

67. Which speed is recommended for checking optimum performance in car AC?

- A) 1600 rpm
- B) 2600 rpm
- C) 4600 rpm
- D) 3600 rpm

68. What is the reason for poor condensation in split AC?

- A) Low ambient temperature
- B) Condenser tube leaky
- C) Blower motor failure
- D) High ambient temperature

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

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

70. What is the use of magnetic clutch in Car AC?

- A) Add oil in the system
- B) Indicate liquid level in the compressor
- C) Indicate oil level in the compressor
- D) Control ON/OFF for compressor

71. Which insulating material is used in duct work?

- A) Rubber
- B) Wood
- C) Plastic
- D) Glass wool

72. Which part of the compressor converts rotary into reciprocating motion of piston in car AC?

- A) Crank shaft
- B) Swash plate
- C) Connecting rod
- D) Magnetic clutch

73. How the pressure drop of refrigerant flow is minimised during installation of indoor and outdoor units in ductable split AC?

- A) With more horizontal distance
- B) Pipe lines with more joints
- C) Install units as far as possible
- D) System pipes with minimum bends

74. Which is the accurate method of refrigerant charging in car AC?

- A) Sight glass bubbles method
- B) Weighing method
- C) Dial a charge method
- D) Suction pressure method

75. Which type fan blade is used with out door unit of split AC?

- A) Vane
- C) Guide vane

- B) Propeller
- D) Centrifugal

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

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

77. What is the test pressure of cooling coils during

manufacture?

- A) 350 psig
- C) 450 psig
- B) 150 psig
- D) 250 psig

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

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