

ITI Quiz - 10-Jun-2026

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Q. ID: ITISKILL0350BE

June 2026

Question Paper

Duration: 30 Mins

Total Marks: 78

ID: ITISKILL0350BE

Student Name: _____ Roll No: _____

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

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

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

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

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

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

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

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

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

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

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

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

7. What is ensured before starting a vacuum pump?

- A) Capacity of the pump
- B) Weight of vacuum pump
- C) Correct oil level
- D) Available ac power supply

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

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

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

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

10. What is the maximum TR capacity operated with Single phase AC supply?

- A) 1.00 TR
- B) 1.5 TR
- C) 5 TR
- D) 2.0 TR

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

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

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

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

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

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

14. What is the differential of control switch if it cuts in at 29 kg/cm² and cuts out at 34 kg/cm²?

- A) 10 kg / cm²
- B) 20 kg / cm²
- C) 15 kg / cm²
- D) 5 kg / cm²

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

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

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

- A) Thermocole
- B) Fibre
- C) GI sheet
- D) Wood

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

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

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

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

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

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

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

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

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

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

22. Which bearing is used in blower motor of indoor unit in ductable split air conditioner?

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

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

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

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

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

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

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

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

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

27. Which causes the clogged orifice in TEV of car AC system?

- | | |
|-------------|--------------------------|
| A) Nitrogen | B) Oxygen |
| C) Moisture | D) Non condensable gases |

28. Which motor is used to drive the condenser fan of outdoor unit in ductable split air conditioner?

- | | |
|--------------------------------|--|
| A) Permanent split motor (PSC) | B) Capacitor start capacitor run motor |
| C) Shaded pole motor | D) Three phase induction motor |

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

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

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

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

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

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

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

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

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

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

34. What is ensured before mounting condenser in car AC?

- | | |
|--|-------------------------------------|
| A) Condenser bottom line to discharge line | B) Accessibility for future service |
| C) Condenser in line with car radiator | D) Condenser top line to TEV inlet |

35. Which refrigerant control is used in car AC?

- | | |
|---------------------------------|-------------------------------------|
| A) Thermostatic expansion valve | B) Thermal electric expansion valve |
| C) Automatic expansion valve | D) Hand shut off valve |

36. What is the test pressure of cooling coils during manufacture?

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

37. Where the refrigerant is stored in split AC during pump down operation?

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

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

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

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

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

40. Which insulating material is used in duct work?

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

41. What is the advantage of inverter split AC?

- A) Eliminates compressor
C) Current drawn is high
- B) High energy efficiency
D) Low energy efficiency

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

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

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

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

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

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

45. What is the use of anemometer?

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

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

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

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

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

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

- A) Vane
C) Guide vane
- B) Centrifugal
D) Propeller

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

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

50. 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
C) Install units as far as possible
- B) System pipes with minimum bends
D) Pipe lines with more joints

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

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

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

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

53. What is the advantage of multi split air conditioners?

- A) One outdoor unit for several indoor units
C) two outdoor units for one indoor unit
- B) One outdoor unit for one indoor unit
D) Several outdoor units for one indoor unit

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

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

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

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

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

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

57. What is the cause of water leakage in indoor unit of multi split AC?

- | | |
|-----------------------------------|---|
| A) Efficient water pump | B) Over flow of water from cooling tower sump |
| C) Condenser water pump defective | D) Drain line not properly installed |

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

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

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

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

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

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

61. Which level of vacuum is required before charging HFC 134a in car AC?

- | | |
|---------------|---------------|
| A) 200 micron | B) 500 micron |
| C) 400 micron | D) 300 micron |

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

- | | |
|--------------------------------|------------------------------|
| A) Increase the feathering | B) Decrease the belt tension |
| C) Decrease the belt vibration | D) Increase the belt tension |

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

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

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

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

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

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

66. What type of compressor motor is used in inverter split AC?

- | | |
|------------------------------------|---------------------------------|
| A) Constant speed compressor motor | B) Centrifugal compressor motor |
| C) Open type compressor motor | D) Variable speed motor |

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

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

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

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

69. Which material is used for making service valve?

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

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

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

71. What tonnage capacity of split AC unit uses 150/200 MFD starting capacitor?

- | | |
|-----------|-----------|
| A) 2.5 TR | B) 1 TR |
| C) 2.0 TR | D) 1.5 TR |

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

- | | |
|--|------------------------------------|
| A) Shaded pole motor | B) Three phase induction motor |
| C) Capacitor start capacitor run motor | D) Permanent split capacitor motor |

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

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

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

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

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

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

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

- A) Four - speed
- C) Three - speed

- B) Two - speed
- D) One - speed

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

- A) Accumulator
- C) Condenser

- B) Liquid receiver
- D) Evaporator

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

- A) Add oil in the system

- B) Indicate oil level in the compressor

- C) Indicate liquid level in the compressor

- D) Control ON/OFF for compressor