

TRADE THEORY MONTHLY TEST

Q. ID: ITISKILL5541QO

May 2026

GOVT ITI MANVI

Answer Key

Duration: 30 Mins

Total Marks: 25

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1. Which expansion valve is suitable for constant load operation?

- A) King valve
- B) Relief valve
- C) Automatic expansion valve
- D) Low side float valve

Answer: C) Automatic expansion valve

2. What is the category of R 502 refrigerant?

- A) Organic compounds
- B) Halocarbon
- C) Azeotropes
- D) Hydrocarbon

Answer: C) Azeotropes

3. What is the effect of pressure drop at the inlet of the evaporator?

- A) Freezing of liquid
- B) Boiling of oil
- C) Freezing of liquid refrigerant
- D) Flashing of liquid refrigerant

Answer: D) Flashing of liquid refrigerant

4. What is the cylinder colour code of R 22 refrigerant?

- A) White
- B) Orange
- C) Orchid
- D) Green

Answer: D) Green

5. What type of heat is absorbed by primary refrigerant?

- A) Specific heat
- B) Sensible heat
- C) Total heat
- D) Latent heat

Answer: D) Latent heat

6. What are the causes for blockage in capillary tube?

- A) Over charging of refrigerant
- B) Moisture and wax from oil
- C) Non condensable gases
- D) Solid particles

Answer: B) Moisture and wax from oil

7. Which property is desirable for an ideal refrigerant?

- A) High latent heat value
- B) High boiling point
- C) High freezing point
- D) High specific volume

Answer: A) High latent heat value

8. What is the physical change of refrigerant in evaporator?

- A) Solid to liquid
- B) Vapour to liquid
- C) Vapour to solid
- D) Liquid to vapour

Answer: D) Liquid to vapour

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

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

Answer: B) ASHRAE

10. Which refrigerant is inactive to ozone layer?

- A) R 22
- B) R 13
- C) R 134a
- D) R 12

Answer: C) R 134a

11. Which is the numerical designation of ammonia refrigerant?

- A) $700 + (\text{Molecular mass of NH}_3) = 720$
- B) $700 + (\text{Molecular mass of NH}_3) = 719$
- C) $700 + (\text{Molecular mass of NH}_3) = 717$
- D) $700 + (\text{Molecular mass of NH}_3) = 718$

Answer: C) $700 + (\text{Molecular mass of NH}_3) = 717$

12. What is the effect of releasing HCFC refrigerants to atmosphere?

- A) Inactive to TEWI
- B) Increases ODP and GWP
- C) Decreases GWP and ODP
- D) Decreases TEWI

Answer: B) Increases ODP and GWP

13. What is the category of R 290 refrigerant?

- A) Halocarbons
- B) Organic compounds
- C) Hydrocarbons
- D) Azeotropes

Answer: C) Hydrocarbons

14. What is the process of accumulation of ice on the surface of evaporator?

- A) Frosting
- B) Evacuating
- C) Defrosting
- D) Melting of frost

Answer: A) Frosting

15. What does the number 4 of R 134a indicate?

- A) Number of chlorine atoms
- B) Number of carbon atoms
- C) Number of hydrogen atoms
- D) Number of fluorine atoms

Answer: D) Number of fluorine atoms

16. Why there is no frosting at the bottom only in plate coil evaporator used with refrigerator?

- A) Excess of refrigerant B) Oil present in the coil
C) Shortage of refrigerant D) Liquid in the coil

Answer: B) Oil present in the coil

17. Why frost accumulates in window AC evaporator?

- A) Air filter blocked B) Less charge of refrigerant
C) Over charge of refrigerant D) Capillary chocking

Answer: A) Air filter blocked

18. Why the capillary tube is preferred as an expansion device?

- A) Periodical servicing is required B) Expensive and more moving parts
C) No system pressure equalising D) Inexpensive and has no moving parts

Answer: D) Inexpensive and has no moving parts

19. How many hydrogen atoms are present in R 134a?

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

Answer: A) Two

20. What is the use of dehydrator?

- A) Absorb heat B) Absorb refrigerant
C) Absorb oil D) Absorb moisture

Answer: D) Absorb moisture

21. What is the ozone depleting potential of R 134a Refrigerant?

- A) 1 B) 0
C) 2 D) 3

Answer: B) 0

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

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

Answer: D) Defective fan motor

23. What is the category of R 407c refrigerant?

- A) Inorganic B) Zeotropes
C) Azeotropes D) Organic

Answer: B) Zeotropes

24. How much is the maximum capacity of refrigerant to be filled in a returnable service cylinder?

- A) Up to 90% B) Up to 95%
C) Up to 85% D) Up to 80%

Answer: D) Up to 80%

25. Which is the inorganic refrigerant?

- A) R 170 B) R 500
C) R 717 D) R 630

Answer: C) R 717