

UNIT-3: Vapour Absorption Refrigeration System (VARs)

1. Vapor Absorption Refrigeration System mainly uses:

- A) Mechanical energy
- B) Heat energy
- C) Solar cells only
- D) Wind energy

2. In VARs, the compressor is replaced by:

- A) Turbine
- B) Generator, absorber, pump arrangement
- C) Evaporator
- D) Condenser

3. The commonly used refrigerant-absorbent pair in Aqua-Ammonia system is:

- A) Water-Lithium Bromide
- B) Ammonia-Water
- C) Air-Water
- D) CO₂-Water

4. In Aqua-Ammonia system, the refrigerant is:

- A) Water
- B) Ammonia
- C) Lithium Bromide
- D) Air

5. In Aqua-Ammonia system, the absorbent is:

- A) Water
- B) Ammonia
- C) Air
- D) CO₂

6. The generator in VARs is used to:

- A) Absorb refrigerant vapor
- B) Supply heat and separate refrigerant vapor
- C) Condense refrigerant
- D) Reduce pressure

7. The absorber is used to:

- A) Absorb refrigerant vapor into absorbent
- B) Increase pressure
- C) Reject heat
- D) Expand refrigerant

8. The pump in VARS is used to:

- A) Increase pressure of solution
- B) Compress refrigerant vapor
- C) Cool refrigerant
- D) Condense refrigerant

9. Which component rejects heat to the atmosphere?

- A) Evaporator
- B) Condenser
- C) Pump
- D) Expansion Valve

10. Refrigeration effect is produced in:

- A) Generator
- B) Absorber
- C) Evaporator
- D) Pump

11. VARS has:

- A) More moving parts
- B) Fewer moving parts
- C) No heat exchanger
- D) No evaporator

12. The COP of VARS is generally:

- A) Higher than VCRS
- B) Lower than VCRS
- C) Equal to VCRS
- D) Infinite

13. A major advantage of VARS is:

- A) Uses waste heat
- B) Requires large electrical power

- C) High noise level
- D) High maintenance

14. VARS is suitable where:

- A) Waste heat is available
- B) Electricity is abundant
- C) Cooling is not required
- D) Fuel is unavailable

15. Lithium Bromide-Water system is mainly used for:

- A) Air Conditioning
- B) Domestic Refrigerators
- C) Automobile Cooling
- D) Ice Plants

16. In Lithium Bromide-Water system, the refrigerant is:

- A) Ammonia
- B) Water
- C) Lithium Bromide
- D) Air

17. In Lithium Bromide-Water system, the absorbent is:

- A) Water
- B) Ammonia
- C) Lithium Bromide
- D) CO₂

18. Which system operates more quietly?

- A) VCRS
- B) VARS
- C) Both same
- D) Neither

19. The main source of energy in VARS is:

- A) Mechanical work
- B) Heat
- C) Electrical work only
- D) Hydraulic power

20. Vapor Absorption Refrigeration System is commonly used in:

- A) Large Air-Conditioning Plants
- B) Bicycles
- C) Small Fans
- D) Pumps