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Question Paper

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Score: 16/34 (47.06%)

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1. Which part connects the piston with small end of connecting rod in a reciprocating compressor?

- A) **Piston pin** B) Piston bolt (Incorrect)
C) Piston rings D) Piston sleeve

2. Which winding is made of thin wire in single phase motor?

- A) Main B) Series
C) **Starting (Correct)** D) Running

3. What is the physical condition of refrigerant in hermetic dome of rotary compressor?

- A) LP Liquid B) HP Liquid
C) **HP Vapour** D) LP Vapour (Incorrect)

4. Which is a positive displacement compressor?

- A) Centrifugal compressor B) **Scroll compressor (Correct)**
C) Water pump D) Oil pump

5. Which instrument is used to identify the terminals of a compressor motor?

- A) Ammeter B) Voltmeter (Incorrect)
C) **Ohm meter** D) Anemometer

6. Which motor has the least starting torque?

- A) CSIR B) CSR (Incorrect)
C) **RSIR** D) PSC

7. Which motor has the least starting torque?

- A) CSIR B) CSR
C) **RSIR** D) PSC (Incorrect)

8. Which winding is made of thick wire in single phase induction motor?

- A) Starting B) **Running (Correct)**
C) Auxiliary D) Additional

9. Which type of compressor is used for domestic refrigerator?

- A) Semi sealed compressor B) Centrifugal compressor

C) **Hermetic compressor (Correct)**

D) Open type compressor

10. What is the revolving part of induction motor?

- A) Stator B) **Rotor**
C) Relay (Incorrect) D) Winding

11. Which type of rotor is used in 3 Phase induction motor?

- A) **Squirrel cage rotor** B) Shaded pole rotor
C) Laminated rotor D) Solid rotor (Incorrect)

12. What is the temperature set in thermostat that stops the compressor motor?

- A) Cut in (Incorrect) B) Range
C) **Cut out** D) Differential

13. Which lubricant oil is used in swash plate of R 134a compressor?

- A) Servo 20 B) **POE**
C) SAE - 40 D) Mineral oil (Incorrect)

14. Which valve is closed during compression stroke in reciprocating compressor?

- A) Service valve B) Liquid line valve
C) Discharge valve (Incorrect) D) **Suction valve**

15. Which gas is used for pressure testing the compressor dome?

- A) Air B) Oxygen
C) **Nitrogen (Correct)** D) Refrigerant

16. Which cooling medium is used to cool the motor of a hermetic reciprocating compressor in AC?

- A) Discharge vapour B) Liquid refrigerant
C) **Suction vapour (Correct)** D) Water

17. What is the method of starting a 3 phase slip ring induction motor?

- A) With starting relay B) Using starting capacitor
C) With running capacitor D) **Adding resistance to rotor winding (Correct)**

18. Which is used to connect the rotor bars in 3phase squirrel cage induction motor?

A) Screw (Incorrect)

C) End ring

B) Welded

D) Nut and bolt

19. What is the use of a starting capacitor in single phase induction motor?

A) Improve power factor

B) Increase starting torque (Correct)

C) Decrease starting torque

D) Disconnect starting winding

20. What is the advantage of a hermetically sealed compressor in refrigerator?

A) Silent operation (Correct)

B) Easily serviceable

C) Noise is more

D) Cost is high

21. Which movement of the scroll compresses the low pressure vapour in scroll compressor?

A) Reciprocating

B) Centrifugal

C) Rotating

D) Orbital (Correct)

22. Which capacitor is disconnected by relay in capacitor start and induction run motor?

A) Starting capacitor (Correct)

B) Running capacitor

C) Boosting capacitor

D) Power factor correction capacitor

23. What is the formula to find out the synchronous speed of induction motor?

A) $N_s = (150P/f)$

B) $N_s = (120f/P)$ (Correct)

C) $N_s = (150f/P)$

D) $N_s = (120P/f)$

24. How to change the direction of rotation in 3 Phase induction motor?

A) Change neutral

B) Change all phase

C) Change any two phase

D) Change the winding only (Incorrect)

25. How the difference between the synchronous speed and the actual rotor speed is specified?

A) Lead (Incorrect)

B) Lag

C) Slip

D) Trip

26. What is the use of capacitor in PSC operated induction motor?

A) Decrease the starting torque (Incorrect)

B) Cancel the starting torque

C) Improve the power factor

D) Decrease the power factor

27. Where the refrigerant vapour is compressed in scroll compressor?

A) Fixed and reciprocating scroll

B) Between fixed and orbiting scrolls

C) Crank and connecting rod

D) Eccentric and cylinder (Incorrect)

28. What is the use of suction baffle in a scroll compressor?

A) Reduce noise of compressor

B) Increase noise of compressor

C) Reduce capacity of compressor (Incorrect)

D) Allow liquid to enter into compressor

29. Which is disconnected by centrifugal switch is RSIR motor?

A) Running winding

B) Common winding

C) Starting winding (Correct)

D) Running capacitor

30. What is the reason for poor compression?

A) Less clearance volume

B) Scratches on the piston surface (Correct)

C) Lapped valve plate and reed seat

D) Good lubrication on the moving parts

31. What is the reason for swash plate compressor failure in car AC?

A) Oil level is low (Correct)

B) Oil level is medium

C) Thermostat not working

D) Refrigerant charge normal

32. Why the top of dome is hot in a scroll compressor?

A) Discharge plenum is at top (Correct)

B) Suction super heat is less

C) Suction gas not cooled

D) Undercharged system

33. What is the effect of moist air present inside the hermetic system?

A) Capacity of compressor will increase (Incorrect)

B) Less wear and tear in compressor

C) Harmful to the compressor and motor

D) Increase the life of compressor

34. What is the cause for frequent tripping of circuit breaker while starting a single phase motor?

A) Winding open (Incorrect)

B) Winding short

C) Motor belt removed

D) No load on the motor