

# HYDRAULIC AND PNEUMATIC SYSTEMS

Q. ID: ITISKILL2444XB

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Answer Key

Duration: 60 Mins

Total Marks: 26

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1. Which device converts mechanical energy into pneumatic energy?

- A) Alternator
- B) Generator
- C) Actuator
- D) Compressor

Answer: D) Compressor

2. Which valve save the pneumatic brake components against damage?

- A) Check valve
- B) Brake valve
- C) Unloader valve
- D) Relay valve

Answer: C) Unloader valve

3. What is the power flow of pneumatic system?

- A) Actuator - Control valve - Compressor
- B) Compressor - Control valve - Actuator
- C) Control valve - Compressor - Actuator
- D) Compressor - Actuator - Control valve

Answer: B) Compressor - Control valve - Actuator

4. How many switching position in 4/2 directional control valve?

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

Answer: A) Two

5. Which service unit act as filter, regulator and lubricator in the pneumatic system?

- A) Actuator unit
- B) Valve unit
- C) Air service unit
- D) Compressor unit

Answer: C) Air service unit

6. What is the reason for pneumatic brake failure?

- A) Defective front wheel slack adjuster
- B) Less pedal play
- C) More pedal play
- D) Defective unloader valve

Answer: D) Defective unloader valve

7. Which component of air brake system converts pneumatic into mechanical energy?

- A) Reservoir
- B) Compressor
- C) Brake valve
- D) Brake chamber

Answer: D) Brake chamber

8. Which type of pump used in the hydraulic jack?

- A) Gear pump
- B) Vane pump
- C) Internal gear pump
- D) Plunger pump

Answer: D) Plunger pump

9. Which device transmit the pressure equally to all wheel cylinders in hydraulic brake?

- A) Booster cylinder
- B) Master cylinder
- C) Slave cylinder
- D) Servo cylinder

Answer: B) Master cylinder

10. What is the working media in pneumatic system?

- A) Diesel
- B) Oil
- C) Air
- D) Stream

Answer: C) Air

11. Which measure the liquid's resistance of flow?

- A) Quality
- B) Viscosity
- C) Elasticity
- D) Gravity

Answer: B) Viscosity

12. Which part in the internal gear pump act as seal?

- A) Crescent-shaped spacer
- B) Sealing ring
- C) Gasket
- D) Gears

Answer: A) Crescent-shaped spacer

13. Which part operates the brake shoe in the hydraulic brake system?

- A) Wheel cylinder
- B) Master cylinder
- C) Break pedal
- D) Break drum

Answer: A) Wheel cylinder

14. Which law is applied in hydraulic brake system?

- A) Boyle's law
- B) Pascal's law
- C) Charles law
- D) Newton's law

Answer: B) Pascal's law

15. Which device converts hydraulic energy into mechanical energy?

- A) Compressor
- B) Regulator
- C) Actuator
- D) Control Valve

Answer: C) Actuator

16. What is the direction of driven gear in an external gear pump?

- A) Perpendicular direction
- B) Same direction
- C) Inclined direction
- D) Opposite direction

**Answer: D) Opposite direction**

17. Which act as a seal in the external gear pump?

- A) Drive gear
- B) Gear meshing
- C) Housing
- D) Driven gear

**Answer: B) Gear meshing**

18. Which valve safe guards the hydraulics jack?

- A) Non return valve 2
- B) Shut off valve
- C) Relief valve
- D) Non return valve 1

**Answer: C) Relief valve**

19. What is the function of hydraulic oil in hydraulic system?

- A) Increase the heat
- B) Transmit power
- C) Reduce the pressure
- D) Increase the volume

**Answer: B) Transmit power**

20. Which unit supplies a fine mist of oil in pneumatic system?

- A) Control valve
- B) Air service unit
- C) Actuator
- D) Pressure relief valve

**Answer: B) Air service unit**

21. What is the effect if the unloader valve is in open position?

- A) Release the air to the brake valve
- B) Continuously allow the air to the atmosphere

- C) Maintain the required air pressure
- D) Allow the air in to the air tank

**Answer: B) Continuously allow the air to the atmosphere**

22. Which is the power source of pneumatic system?

- A) Control value
- B) Air Service unit
- C) Actuator
- D) Air Compressor

**Answer: D) Air Compressor**

23. What is the type of inner drive gear used in the internal gear oil pump?

- A) Rotor gear
- B) Helical gear
- C) Spiral gear
- D) Spur gear

**Answer: D) Spur gear**

24. Which valve regulate the flow rate in hydraulic system?

- A) Non return
- B) Pressure relief
- C) Delivery
- D) By pass

**Answer: C) Delivery**

25. Which law states that the pressure intensity of a static liquid equal in all direction?

- A) Boyle's law
- B) Pascal's law
- C) Newton's law
- D) Charle's law

**Answer: B) Pascal's law**

26. Which valve is to be closed before lifting the load with hydraulic jack?

- A) Non return valve-1
- B) Non return valve-2
- C) Relief valve
- D) Shut of valve

**Answer: D) Shut of valve**