

# HYDRAULIC AND PNEUMATIC SYSTEMS

Q. ID: ITISKILL4170VY

February 2026

Answer Key

Duration: 60 Mins

Total Marks: 26

Q.ID: ITISKILL4170VY

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

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

Answer: A) Master cylinder

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

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

Answer: B) Unloader valve

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

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

Answer: D) Brake chamber

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

- A) Allow the air in to the air tank
- B) Continuously allow the air to the atmosphere
- C) Maintain the required air pressure
- D) Release the air to the brake valve

Answer: B) Continuously allow the air to the atmosphere

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

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

Answer: C) Transmit power

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

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

Answer: C) Viscosity

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

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

Answer: C) Gear meshing

8. Which law is applied in hydraulic brake system?

- A) Newton's law
- B) Boyle's law

- C) Charles law
- D) Pascal's law

Answer: D) Pascal's law

9. Which is the power source of pneumatic system?

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

Answer: C) Air Compressor

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

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

Answer: B) Two

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

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

Answer: D) Delivery

12. 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

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

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

Answer: A) Opposite direction

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

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

Answer: A) Air service unit

15. Which valve safe guards the hydraulics jack?

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

Answer: A) Relief valve

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

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

**Answer: C) Spur gear**

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

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

**Answer: A) Crescent-shaped spacer**

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

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

**Answer: B) Shut of valve**

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

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

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

20. Which device converts mechanical energy into pneumatic energy?

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

**Answer: B) Compressor**

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

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

**Answer: B) Wheel cylinder**

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

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

**Answer: A) Plunger pump**

23. What is the working media in pneumatic system?

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

**Answer: D) Air**

24. What is the power flow of pneumatic system?

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

**Answer: D) Compressor - Control valve - Actuator**

25. What is the reason for pneumatic brake failure?

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

**Answer: B) Defective unloader valve**

26. Which device converts hydraulic energy into mechanical energy?

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

**Answer: A) Actuator**