Chevron Nigeria Limited Skills Test Questions and Answers - Associate Operator

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1. What is the main function of a pump in an oil and gas operation?

   A) To decrease the pressure of fluids
   B) To move fluids from one location to another
   C) To mix fluids
   D) To monitor the temperature of fluids
   Answer: B) To move fluids from one location to another

2. When operating a valve, what is the primary concern to ensure safe operation?

   A) Correct flow rate
   B) Correct positioning and sealing to prevent leakage
   C) Valve brand and specifications
   D) Ensuring the valve is always open
   Answer: B) Correct positioning and sealing to prevent leakage

3. What is the function of a pressure relief valve in an industrial system?

   A) To control the temperature of the fluid
   B) To maintain the pressure within safe operating limits
   C) To increase the pressure for flow optimization
   D) To filter the fluids passing through the system
   Answer: B) To maintain the pressure within safe operating limits

4. Which of the following is NOT a typical task for an Associate Operator in the oil and gas industry?

   A) Monitoring equipment operation
   B) Preventing spillages and leaks
   C) Designing new facilities
   D) Performing routine inspections
   Answer: C) Designing new facilities

5. When operating an electric motor, what safety measure is critical?

   A) Ensuring the motor is grounded
   B) Checking the motor's lubrication level
   C) Making sure the motor is always running at maximum speed
   D) Ensuring the motor is clean and free from dust
   Answer: A) Ensuring the motor is grounded

6. In an oil refinery, what is the primary role of a heat exchanger?

A) To reduce the temperature of incoming fluids
B) To maintain a constant temperature in the system
C) To transfer heat between two fluids without mixing them
D) To heat fluids for distillation
Answer: C) To transfer heat between two fluids without mixing them

7. In piping systems, flanges are used for:

A) Increasing pressure
B) Connecting pipes and enabling maintenance access
C) Distributing fluids
D) Insulating pipes
Answer: B) Connecting pipes and enabling maintenance access

8. Maintenance of equipment in an industrial setting primarily focuses on:

A) Increasing the weight of the equipment
B) Maximizing the speed of the equipment
C) Ensuring that equipment operates efficiently and safely
D) Making the equipment more complex
Answer: C) Ensuring that equipment operates efficiently and safely

9. When using a fire extinguisher, the PASS acronym stands for:

A) Pull, Aim, Squeeze, Sweep
B) Push, Adjust, Set, Sweep
C) Pull, Activate, Stop, Squeeze
D) Push, Aim, Sweep, Squeeze
Answer: A) Pull, Aim, Squeeze, Sweep

10. Corrosion in industrial pipes can be prevented by:

A) Regular cleaning and maintenance
B) Applying coatings such as paint or corrosion inhibitors
C) Using plastic pipes only
D) Running fluids at high pressure
Answer: B) Applying coatings such as paint or corrosion inhibitors

11. The hydraulic system in an industrial operation is used for:

A) Converting electrical energy into mechanical energy
B) Transferring power through pressurized fluids
C) Regulating temperature
D) Filtering impurities from liquids
Answer: B) Transferring power through pressurized fluids

12. Which of the following should be checked when starting an air compressor?

A) Fuel level and motor temperature
B) Pressure gauge reading and oil level
C) Air filter and exhaust system
D) Both B and C
Answer: D) Both B and C

13. A seal in a valve or pipe is used to:

A) Control the flow rate of fluids
B) Prevent leakage of fluids and gases
C) Filter the fluids
D) Increase pressure in the system
Answer: B) Prevent leakage of fluids and gases

14. In centrifugal pumps, the flow rate typically increases with an increase in:

A) Motor speed
B) Pressure head
C) Fluid viscosity
D) Pipe diameter
Answer: A) Motor speed

15. Which of the following is a typical symptom of bearing failure in rotating equipment?

A) Increased noise and vibration
B) Sudden pressure drop
C) Increased fluid flow
D) Higher temperature at the exhaust
Answer: A) Increased noise and vibration

16. Gas detection systems in industrial plants are used to:

A) Measure the temperature of gases
B) Detect the presence of harmful or combustible gases
C) Regulate gas pressure
D) Measure gas flow rate
Answer: B) Detect the presence of harmful or combustible gases

17. In fluid systems, the pump suction pressure should be monitored because:

A) Low suction pressure can cause cavitation and damage the pump
B) High suction pressure can lead to overheating
C) It affects the flow rate
D) It determines the power consumption of the pump
Answer: A) Low suction pressure can cause cavitation and damage the pump

18. When shutting down an industrial system, what is the first step?

A) Isolate power supply
B) Close all valves
C) Disconnect all sensors
D) Drain the system
Answer: A) Isolate power supply

19. In a distillation column, the purpose of reboilers is to:

A) Cool the distillation mixture
B) Maintain the desired temperature in the column
C) Separate solids from liquids
D) Add heat to the liquid to aid in vaporization
Answer: D) Add heat to the liquid to aid in vaporization

20. Lubrication in mechanical systems is essential for:

A) Increasing friction
B) Reducing wear and tear
C) Increasing system temperature
D) Creating an airtight seal
Answer: B) Reducing wear and tear

21. The scaling in pipes and heat exchangers is often caused by:

A) High velocity fluids
B) Low pressure conditions
C) Precipitation of minerals from hard water
D) Excessive lubrication
Answer: C) Precipitation of minerals from hard water

22. A pressure gauge is used to measure:

A) Fluid flow rate
B) Temperature changes
C) The pressure exerted by a fluid or gas
D) The viscosity of the fluid
Answer: C) The pressure exerted by a fluid or gas

23. When starting a generator, it is important to check:

A) Oil levels and battery charge
B) The fuel gauge only

C) The exhaust temperature only
D) The vibration level only
Answer: A) Oil levels and battery charge

24. In safety operations, an emergency shutdown (ESD) system is designed to:

A) Increase the system pressure to avoid hazards
B) Automatically shut down equipment to prevent accidents
C) Regulate temperature fluctuations
D) Boost energy output in an emergency
Answer: B) Automatically shut down equipment to prevent accidents

25. Training and certification for an Associate Operator are essential because:

A) They help to improve personal job performance
B) They are legally required to operate heavy machinery
C) They reduce operating costs
D) They increase the speed of work
Answer: A) They help to improve personal job performance

26. What is the primary function of a safety relief valve in an industrial operation?

A) To monitor system pressure continuously
B) To release excess pressure in case of over-pressurization
C) To prevent temperature fluctuations in the system
D) To regulate the flow rate of fluids
Answer: B) To release excess pressure in case of over-pressurization

27. The flow rate of a pump in an industrial operation is mainly determined by:

A) The pipe diameter and fluid viscosity
B) The fluid temperature only
C) The number of valves in the system
D) The size of the pump motor
Answer: A) The pipe diameter and fluid viscosity

28. Which of the following is the best practice for maintaining a diesel engine?

A) Checking oil and fuel levels before operation
B) Running the engine at maximum power at all times
C) Operating the engine without a filter to reduce clogging
D) Running the engine continuously without breaks
Answer: A) Checking oil and fuel levels before operation

29. The principle behind a filter used in an industrial filtration system is to:

A) Separate liquids from gases
B) Remove contaminants from fluids
C) Increase the velocity of fluids
D) Add pressure to the system

Answer: B) Remove contaminants from fluids

30. In an industrial pneumatic system, the compressor is used to:

A) Compress air and store it under pressure for operation
B) Filter the air to remove moisture
C) Convert electrical energy into mechanical energy
D) Cool the air in the system
Answer: A) Compress air and store it under pressure for operation

31. A temperature gauge is primarily used to measure:

A) The pressure of fluids in the system
B) The viscosity of the fluid in pipes
C) The temperature of the fluid or gas in the system
D) The flow rate of fluids through pipes
Answer: C) The temperature of the fluid or gas in the system

32. What should you do if you discover a gas leak in an industrial environment?

A) Continue with normal operations and report it later
B) Immediately shut down the system and evacuate the area if necessary
C) Try to seal the leak using available materials
D) Ignore the leak if it's not major
Answer: B) Immediately shut down the system and evacuate the area if necessary

33. In a closed-loop cooling system, the function of a cooling tower is to:

A) Increase the temperature of the circulating water
B) Remove heat from the water through evaporation
C) Monitor the water pressure
D) Filter contaminants from the water
Answer: B) Remove heat from the water through evaporation

34. A clutch in a mechanical system is used to:

A) Increase the torque output
B) Control the rotation direction of the system
C) Connect and disconnect the power transmission between components
D) Lubricate the rotating components
Answer: C) Connect and disconnect the power transmission between components

35. In hydraulic systems, the function of a reservoir is to:

A) Store excess pressure from the system
B) Store and supply fluid to the system
C) Remove moisture from the hydraulic fluid
D) Filter contaminants from the hydraulic fluid
Answer: B) Store and supply fluid to the system

36. Which of the following is an important consideration when handling hazardous chemicals in an industrial environment?

A) Always use appropriate personal protective equipment (PPE)
B) Always store chemicals at high temperatures
C) Ignore any safety data sheets or warning labels
D) Only handle chemicals during the night shift
Answer: A) Always use appropriate personal protective equipment (PPE)

37. A flow control valve in an industrial system is used to:

A) Control the temperature of the fluid
B) Increase the pressure in the system
C) Control the flow rate of the fluid
D) Filter contaminants from the fluid
Answer: C) Control the flow rate of the fluid

38. A backup power system in industrial operations is necessary to:

A) Improve the efficiency of the equipment
B) Ensure continuous operation during power failures
C) Reduce the need for maintenance
D) Increase the amount of work done
Answer: B) Ensure continuous operation during power failures

39. When troubleshooting a pump failure, what is the first step to take?

A) Immediately replace the pump with a new one
B) Check the power supply and ensure proper connections
C) Continue to operate the pump and monitor its behavior
D) Increase the pump's speed to compensate for the failure
Answer: B) Check the power supply and ensure proper connections

40. A V-belt in mechanical systems is typically used for:

A) Increasing the torque output from the motor
B) Transmitting power from one rotating shaft to another
C) Reducing the speed of the motor
D) Cooling the components of the system
Answer: B) Transmitting power from one rotating shaft to another

41. What is the most common cause of corrosion in piping systems in the oil and gas industry?

A) Excessive lubrication
B) Exposure to high-pressure gas
C) Exposure to moisture and oxygen
D) Running fluids at high temperatures
Answer: C) Exposure to moisture and oxygen

42. The function of a strainer in a fluid system is to:

A) Increase fluid pressure
B) Remove debris and particulates from the fluid
C) Add chemicals to the fluid
D) Decrease the temperature of the fluid
Answer: B) Remove debris and particulates from the fluid

43. Lubricating oil in industrial machinery is primarily used to:

A) Clean the internal components
B) Prevent overheating and reduce friction between moving parts
C) Increase the temperature of the system
D) Act as a coolant for the machinery
Answer: B) Prevent overheating and reduce friction between moving parts

44. What should be done if a motor begins to overheat during operation?

A) Increase the speed to help it cool down
B) Shut down the motor, check for blockage, and inspect cooling systems
C) Continue operating until the motor fails
D) Add more fuel to the motor
Answer: B) Shut down the motor, check for blockage, and inspect cooling systems

45. In an industrial process, pneumatic tools are powered by:

A) Electrical energy
B) Compressed air
C) Hydraulic fluid
D) Manual labor
Answer: B) Compressed air

46. The purpose of preventive maintenance in industrial operations is to:

A) Replace all equipment parts regularly
B) Ensure that equipment operates without failure by performing regular inspections and servicing
C) Increase downtime to perform repairs
D) Remove the need for regular safety checks
Answer: B) Ensure that equipment operates without failure by performing regular inspections and servicing

47. A hydraulic press uses pressure from a fluid to:

A) Generate mechanical energy
B) Power turbines
C) Compress and shape materials
D) Control the flow rate in pipes
Answer: C) Compress and shape materials

48. The main purpose of a filter press in industrial operations is to:

A) Filter gases from the exhaust
B) Separate solids from liquids in a slurry
C) Increase the flow rate of liquids
D) Reduce the pressure in the system
Answer: B) Separate solids from liquids in a slurry

49. Cleaning agents used in industrial cleaning should be selected based on their:

A) Cost and availability
B) Chemical properties and compatibility with the materials being cleaned
C) Packaging size
D) Color and fragrance
Answer: B) Chemical properties and compatibility with the materials being cleaned

50. A suction strainer in a pump system is used to:

A) Remove large debris from the pump intake
B) Increase the flow rate of the system
C) Monitor pressure changes within the system
D) Regulate the temperature of the incoming fluid
Answer: A) Remove large debris from the pump intake

51. When starting a motor, it is important to ensure that:

A) The motor is disconnected from the electrical supply
B) The motor's lubrication system is functioning properly
C) The motor's exhaust is free from blockages
D) The motor operates at full speed immediately
Answer: B) The motor's lubrication system is functioning properly

52. In a steam boiler system, boiler water treatment is important to:

A) Reduce the risk of scaling and corrosion
B) Increase the temperature of the steam
C) Reduce the need for preventive maintenance
D) Prevent steam formation
Answer: A) Reduce the risk of scaling and corrosion

53. Which of the following is a common cause of pump cavitation?

A) Low fluid temperature
B) Low inlet pressure or insufficient flow
C) High system pressure
D) High fluid viscosity
Answer: B) Low inlet pressure or insufficient flow

54. In an electric motor, the bearing temperature should be regularly checked because:

A) Excessive bearing temperature can cause motor failure
B) Bearings operate at their best at high temperatures
C) It helps to measure the motor's efficiency
D) High bearing temperature reduces power consumption
Answer: A) Excessive bearing temperature can cause motor failure

55. The function of a pressure gauge in an industrial system is to:

A) Measure the rate of flow of fluids
B) Monitor the temperature of the fluid
C) Measure the pressure of fluids in pipes or equipment
D) Control the flow rate of fluids
Answer: C) Measure the pressure of fluids in pipes or equipment

56. Heat exchangers are used in industrial systems to:

A) Heat or cool a fluid by transferring heat between two fluids
B) Filter contaminants from fluids
C) Increase fluid flow rate
D) Reduce the power required for pumps
Answer: A) Heat or cool a fluid by transferring heat between two fluids

57. Which of the following actions is a first step when performing maintenance on a machine?

A) Immediately start disassembling the equipment
B) Disconnect power sources and ensure the machine is isolated
C) Replace all worn-out parts before inspection
D) Start the machine to ensure it is functioning correctly
Answer: B) Disconnect power sources and ensure the machine is isolated

58. In an industrial boiler system, what is the purpose of the blowdown valve?

A) To remove sludge and impurities from the water
B) To regulate the steam temperature
C) To release excess steam pressure
D) To increase the water level in the boiler
Answer: A) To remove sludge and impurities from the water

59. Filtration in industrial systems helps to:

A) Remove large debris and particles from fluids
B) Control the temperature of the fluids
C) Increase the viscosity of the fluid
D) Measure the flow rate of the fluid
Answer: A) Remove large debris and particles from fluids

60. Safety valves in an industrial system are essential to:

A) Regulate fluid temperature
B) Maintain constant pressure within the system
C) Prevent over-pressurization and protect equipment
D) Measure the volume of fluids in the system
Answer: C) Prevent over-pressurization and protect equipment

61. The valve positioner is used to:

A) Regulate the position of the valve stem in automatic control systems
B) Increase the flow rate through the valve
C) Monitor the temperature of the valve
D) Measure the pressure inside the valve
Answer: A) Regulate the position of the valve stem in automatic control systems

62. A dead leg in a piping system can cause:

A) A decrease in flow rate and pressure drop
B) The formation of stagnant fluid that can lead to corrosion or bacterial growth
C) Increased energy consumption in the pump
D) Decreased turbulence in the fluid
Answer: B) The formation of stagnant fluid that can lead to corrosion or bacterial growth

63. When operating crane equipment, it is important to:

A) Lift the maximum load at all times
B) Ensure the load is within the rated lifting capacity
C) Avoid checking the load before lifting
D) Only lift loads that are below the operator's eye level
Answer: B) Ensure the load is within the rated lifting capacity

64. Vibration analysis in machinery helps to:

A) Improve the noise level in the system
B) Detect imbalance or wear in rotating components
C) Reduce energy consumption
D) Increase system pressure
Answer: B) Detect imbalance or wear in rotating components

65. In an industrial system, corrosion inhibitors are used to:

A) Increase the system pressure
B) Prevent the buildup of deposits in pipes
C) Prevent rust and corrosion on metal surfaces
D) Reduce fluid flow rate
Answer: C) Prevent rust and corrosion on metal surfaces

66. Fire safety in an industrial facility requires:

A) Routine inspection and testing of fire extinguishers and safety equipment

B) Ignoring fire drills and training because they are time-consuming
C) Ensuring all equipment runs continuously without shutdowns
D) Storing hazardous materials near heat sources
Answer: A) Routine inspection and testing of fire extinguishers and safety equipment

67. The function of an exhaust fan in an industrial system is to:

A) Circulate compressed air throughout the facility
B) Remove fumes, heat, and contaminants from the air
C) Increase the temperature in the system
D) Filter debris from the fluid system
Answer: B) Remove fumes, heat, and contaminants from the air

68. When operating a pressure relief valve, it is important to:

A) Open the valve slowly to avoid damage to the system
B) Keep the valve fully open at all times
C) Replace the valve if it gets stuck in the closed position
D) Continuously monitor the pressure and never adjust the valve
Answer: A) Open the valve slowly to avoid damage to the system

69. The flow meter in an industrial process is used to measure:

A) The amount of heat being generated
B) The flow rate of fluids or gases within the system
C) The pressure of fluids in the system
D) The concentration of chemicals in the fluid
Answer: B) The flow rate of fluids or gases within the system

70. The purpose of ventilation systems in an industrial facility is to:

A) Increase the temperature of the operating environment
B) Remove or dilute hazardous gases, vapors, and heat from the air
C) Filter contaminants from the incoming raw materials
D) Maintain the system's pressure
Answer: B) Remove or dilute hazardous gases, vapors, and heat from the air

71. Pump seals are used to:

A) Prevent leaks and ensure the efficient operation of the pump
B) Increase the pump’s efficiency by decreasing friction
C) Block the flow of fluids within the system
D) Filter solids from the fluids being pumped
Answer: A) Prevent leaks and ensure the efficient operation of the pump

72. In an oil separator, the primary function is to:

A) Separate oil from water or gas mixtures
B) Increase the pressure of oil in the system
C) Add chemicals to the oil mixture

D) Monitor the viscosity of the oil
Answer: A) Separate oil from water or gas mixtures

73. When operating an industrial compressor, it is important to:

A) Operate the compressor at full capacity all the time
B) Monitor the intake air filters and pressure levels regularly
C) Ignore any noise or vibration from the compressor
D) Stop the compressor after every 10-minute operation
Answer: B) Monitor the intake air filters and pressure levels regularly

73. The purpose of a relief valve in a pressure system is to:

A) Control the flow rate
B) Prevent system overpressure by releasing excess pressure
C) Monitor fluid temperature
D) Measure the viscosity of the fluid
Answer: B) Prevent system overpressure by releasing excess pressure

74. A reducing valve is used to:

A) Increase the flow rate of a fluid
B) Control the temperature of the fluid
C) Reduce the pressure of a fluid to a desired level
D) Filter contaminants from the fluid
Answer: C) Reduce the pressure of a fluid to a desired level

75. The function of a cooling tower in an industrial system is to:

A) Increase the temperature of the circulating fluid
B) Remove excess heat from the system by evaporating water
C) Filter solids from the cooling water
D) Increase the pressure of the water in the cooling system
Answer: B) Remove excess heat from the system by evaporating water

76. Water hammer in a piping system occurs when:

A) Fluid velocity increases gradually
B) There is a sudden change in the flow rate or the fluid is suddenly stopped
C) Fluid pressure increases continuously
D) The system's temperature remains constant
Answer: B) There is a sudden change in the flow rate or the fluid is suddenly stopped

77. What is the primary cause of corrosion in pipes?

A) Moisture and oxygen exposure
B) High-pressure fluctuations
C) Low system temperature
D) Excessive lubrication
Answer: A) Moisture and oxygen exposure

78. The purpose of a surge tank in a pump system is to:

A) Store excess fluid during peak operation
B) Regulate the pump's discharge pressure
C) Prevent pressure surges and ensure steady flow
D) Monitor fluid temperature in the system
Answer: C) Prevent pressure surges and ensure steady flow

79. A strainer is used in fluid systems to:

A) Regulate pressure
B) Remove debris and particles from the fluid
C) Increase fluid flow rate
D) Measure the temperature of the fluid
Answer: B) Remove debris and particles from the fluid

80. When operating a pneumatic system, the primary function of a compressor is to:

A) Increase the flow rate of air
B) Compress air and store it for later use
C) Monitor the air quality
D) Cool the air in the system
Answer: B) Compress air and store it for later use

81. A level switch is used in a tank to:

A) Measure the temperature of the fluid inside the tank
B) Control the flow rate of the fluid
C) Monitor the fluid level and activate pumps or valves as necessary
D) Prevent corrosion in the system
Answer: C) Monitor the fluid level and activate pumps or valves as necessary

82. Which of the following is a common safety practice when operating industrial equipment?

A) Always operate equipment at maximum speed
B) Inspect and maintain equipment regularly to ensure it is safe to use
C) Ignore warning signals and alarms to avoid unnecessary interruptions
D) Use equipment without proper training
Answer: B) Inspect and maintain equipment regularly to ensure it is safe to use

83. A high-level alarm in a tank system indicates:

A) The tank is overfilled, and there is a risk of overflow or spillage
B) The tank is running low on fluid
C) The pressure in the system is too low
D) The fluid temperature is within acceptable limits
Answer: A) The tank is overfilled, and there is a risk of overflow or spillage

84. What is the function of a check valve in a pipeline system?

A) To regulate the pressure within the system
B) To allow fluid flow in one direction only and prevent backflow

C) To control the temperature of the fluid in the system
D) To monitor fluid levels in tanks
Answer: B) To allow fluid flow in one direction only and prevent backflow

85. A vibration monitor is used to detect:

A) Low fluid levels
B) Excessive pressure in the system
C) Imbalances or wear in rotating components of machinery
D) Temperature fluctuations in the system
Answer: C) Imbalances or wear in rotating components of machinery

86. The primary reason for flushing a pipeline is to:

A) Increase the flow rate of the fluid
B) Remove contaminants and debris from the system
C) Add chemicals to the fluid
D) Regulate the temperature of the fluid
Answer: B) Remove contaminants and debris from the system

87. Which of the following is a common symptom of pump failure?

A) The pump is vibrating excessively
B) The pump is operating at full efficiency without any noise
C) The pump motor is overheating
D) The pump is delivering fluids at an excessive pressure
Answer: A) The pump is vibrating excessively

88. The main purpose of a condensate pump in a steam system is to:

A) Increase the pressure of the steam
B) Remove and recover the condensed water from the system
C) Filter impurities from the steam
D) Regulate the temperature of the steam
Answer: B) Remove and recover the condensed water from the system

89. In a water treatment plant, a coagulation process is used to:

A) Disinfect the water
B) Remove large particles and impurities by forming a mass (floc)
C) Regulate the flow rate of water
D) Control the pH level of the water
Answer: B) Remove large particles and impurities by forming a mass (floc)

90. The purpose of a heat exchanger in industrial processes is to:

A) Increase the fluid flow rate
B) Transfer heat between two fluids without mixing them
C) Filter contaminants from the fluid
D) Increase the pressure in the system
Answer: B) Transfer heat between two fluids without mixing them

91. In an industrial piping system, the purpose of expansion joints is to:

A) Prevent vibration and shock loads

B) Allow for expansion and contraction of pipes due to temperature changes
C) Increase the pressure in the system
D) Regulate fluid flow rate
Answer: B) Allow for expansion and contraction of pipes due to temperature changes

92. The main purpose of an actuator in a control system is to:

A) Measure pressure or flow
B) Provide a mechanical force to move a valve or damper based on control signals
C) Regulate the temperature of the fluid
D) Monitor fluid levels in a tank
Answer: B) Provide a mechanical force to move a valve or damper based on control signals

93. The function of a surge protector in an electrical system is to:

A) Regulate the voltage output to prevent overvoltage damage
B) Convert AC power to DC power
C) Control the frequency of the electrical supply
D) Increase the power supply to electrical equipment
Answer: A) Regulate the voltage output to prevent overvoltage damage

94. The main cause of mechanical seal failure in rotating equipment is:

A) Low fluid temperature
B) Overheating and lack of lubrication
C) Excessive vibration and misalignment
D) Underpressure in the system
Answer: B) Overheating and lack of lubrication

95. The purpose of a desiccant dryer in a compressed air system is to:

A) Remove moisture from the air
B) Increase the air pressure
C) Add lubrication to the air system
D) Filter particulate matter from the air
Answer: A) Remove moisture from the air

96. What is the main function of a sealant in an industrial system?

A) To increase fluid flow
B) To seal leaks and prevent the escape of fluids or gases
C) To cool the system
D) To measure fluid levels in tanks
Answer: B) To seal leaks and prevent the escape of fluids or gases

97. The main purpose of a gearbox in mechanical systems is to:

A) Increase fluid pressure
B) Convert electrical energy into mechanical power
C) Change the speed and torque of the rotating shaft
D) Monitor vibration levels in the equipment
Answer: C) Change the speed and torque of the rotating shaft

97. In an industrial compressed air system, an air receiver tank is used to:

A) Increase the flow rate of compressed air
B) Store compressed air for future use and reduce pressure fluctuations
C) Filter contaminants from the air
D) Decrease the noise produced by the compressor
Answer: B) Store compressed air for future use and reduce pressure fluctuations

98. A rupture disc in a pressure relief system is designed to:

A) Control the temperature in the system
B) Prevent the system from over-pressurizing by bursting at a set pressure
C) Monitor fluid flow
D) Filter particles from the fluid
Answer: B) Prevent the system from over-pressurizing by bursting at a set pressure

99. In a chemical dosing system, the dosing pump is used to:

A) Increase the concentration of chemicals in the system
B) Precisely add a controlled amount of chemicals to the fluid flow
C) Measure the chemical content in the fluid
D) Regulate the temperature of the chemicals being dosed
Answer: B) Precisely add a controlled amount of chemicals to the fluid flow

100. The primary function of a bearing in machinery is to:
A) Convert electrical energy into mechanical energy
B) Reduce friction and support rotating parts of the machinery
C) Regulate fluid flow through the system
D) Monitor temperature changes within the machinery
Answer: B) Reduce friction and support rotating parts of the machinery