

Code No:56091

Set No. 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

III B.Tech. II Sem., II Mid-Term Examinations, April – 2014

FLUID POWER AND CONTROL

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Installing larger diameter pipe in pumping system results in reduction in []
a. Static head b. Frictional head c. Both a and b d. None of the above
2. For high flow requirement, pumps are generally operated in []
a. Parallel b. Series c. Both a and b d. None of the above
3. Friction losses in a pumping system is []
a. Proportional to $1 / Q$ b. Proportional to $1 / Q^2$
c. Proportional to $1 / Q^3$ d. Proportional to $1 / Q^4$
4. Throttling the delivery valve of a pump results in []
a. Increased head b. Increased power c. Decreased head d. Both a and b
5. The operating point in a pumping system is identified by []
a. Point of intersection of system curve and efficiency curve
b. Point of intersection of pump curve and system curve
c. Point of intersection of pump curve and theoretical power curve
d. Cannot be determined by the pump characteristic curves
6. Small by-pass lines are sometimes installed to []
a. Control the flow rate b. Control the pump delivery head
c. Reduce pump power consumption d. Prevent the pump from running at zero flow
7. A control valve is a device used for regulating []
a. pressure of flowing fluid b. direction of flowing fluid c. flow of fluid d. a, b and c
8. Relief valve is a []
a. Direction control valve b. Flow control valve c. Pressure control valve d. None of these
9. The function of a pressure compensating valve is to []
a. Unload the system b. Cause operations in a sequential order
c. Maintain a constant level of pressure in a hydraulic circuit
d. To relieve excess pressure in a circuit
10. Which of the following axial fan types is most efficient []
a. Propeller b. Tube axial c. Vane axial d. Radial

Cont.....2

II Fill in the blanks

11. In Aero plane, type of rotary compressor used is _____
12. Speed of rotary compressors as compare to reciprocating compressors is _____
13. The volumetric efficiency of compressor with increase in compression will _____
14. The capacity of compression will be highest when its intake temperature is _____
15. In multi stage compression, the isothermal compression is achieved by _____
16. Rotary compressor is best suited for _____
17. Volumetric efficiency for reciprocating air compressor is about _____
18. The maximum delivery pressure in a rotary compressor is _____
19. The parameter used by ASME to define fans, blowers and compressors is _____
20. The efficiency of backward curved fans compared to forward curved fans is _____

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Set No. 2

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III B.Tech. II Sem., II Mid-Term Examinations, April – 2014

FLUID POWER AND CONTROL

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Throttling the delivery valve of a pump results in []
a. Increased head b. Increased power c. Decreased head d. Both a and b
2. The operating point in a pumping system is identified by []
a. Point of intersection of system curve and efficiency curve
b. Point of intersection of pump curve and system curve
c. Point of intersection of pump curve and theoretical power curve
d. Cannot be determined by the pump characteristic curves
3. Small by-pass lines are sometimes installed to []
a. Control the flow rate b. Control the pump delivery head
c. Reduce pump power consumption d. Prevent the pump from running at zero flow
4. A control valve is a device used for regulating []
a. pressure of flowing fluid b. direction of flowing fluid c. flow of fluid d. a, b and c
5. Relief valve is a []
a. Direction control valve b. Flow control valve c. Pressure control valve d. None of these
6. The function of a pressure compensating valve is to []
a. Unload the system b. Cause operations in a sequential order
c. Maintain a constant level of pressure in a hydraulic circuit
d. To relieve excess pressure in a circuit
7. Which of the following axial fan types is most efficient []
a. Propeller b. Tube axial c. Vane axial d. Radial
8. Installing larger diameter pipe in pumping system results in reduction in []
a. Static head b. Frictional head c. Both a and b d. None of the above
9. For high flow requirement, pumps are generally operated in []
a. Parallel b. Series c. Both a and b d. None of the above
10. Friction losses in a pumping system is []
a. Proportional to $1 / Q$ b. Proportional to $1 / Q^2$
c. Proportional to $1 / Q^3$ d. Proportional to $1 / Q^4$

Cont.....2

II Fill in the blanks

11. The capacity of compression will be highest when its intake temperature is _____
12. In multi stage compression, the isothermal compression is achieved by _____
13. Rotary compressor is best suited for _____
14. Volumetric efficiency for reciprocating air compressor is about _____
15. The maximum delivery pressure in a rotary compressor is _____
16. The parameter used by ASME to define fans, blowers and compressors is _____
17. The efficiency of backward curved fans compared to forward curved fans is _____
18. In Aero plane, type of rotary compressor used is _____
19. Speed of rotary compressors as compare to reciprocating compressors is _____
20. The volumetric efficiency of compressor with increase in compression will _____

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Set No. 3

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III B.Tech. II Sem., II Mid-Term Examinations, April – 2014

FLUID POWER AND CONTROL

Objective Exam

Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Small by-pass lines are sometimes installed to []
a. Control the flow rate b. Control the pump delivery head
c. Reduce pump power consumption d. Prevent the pump from running at zero flow
2. A control valve is a device used for regulating []
a. pressure of flowing fluid b. direction of flowing fluid c. flow of fluid d. a, b and c
3. Relief valve is a []
a. Direction control valve b. Flow control valve c. Pressure control valve d. None of these
4. The function of a pressure compensating valve is to []
a. Unload the system b. Cause operations in a sequential order
c. Maintain a constant level of pressure in a hydraulic circuit
d. To relieve excess pressure in a circuit
5. Which of the following axial fan types is most efficient []
a. Propeller b. Tube axial c. Vane axial d. Radial
6. Installing larger diameter pipe in pumping system results in reduction in []
a. Static head b. Frictional head c. Both a and b d. None of the above
7. For high flow requirement, pumps are generally operated in []
a. Parallel b. Series c. Both a and b d. None of the above
8. Friction losses in a pumping system is []
a. Proportional to $1 / Q$ b. Proportional to $1 / Q^2$
c. Proportional to $1 / Q^3$ d. Proportional to $1 / Q^4$
9. Throttling the delivery valve of a pump results in []
a. Increased head b. Increased power c. Decreased head d. Both a and b
10. The operating point in a pumping system is identified by []
a. Point of intersection of system curve and efficiency curve
b. Point of intersection of pump curve and system curve
c. Point of intersection of pump curve and theoretical power curve
d. Cannot be determined by the pump characteristic curves

Cont.....2

II Fill in the blanks

11. Rotary compressor is best suited for_____
12. Volumetric efficiency for reciprocating air compressor is about_____
13. The maximum delivery pressure in a rotary compressor is_____
14. The parameter used by ASME to define fans, blowers and compressors is _____
15. The efficiency of backward curved fans compared to forward curved fans is_____
16. In Aero plane, type of rotary compressor used is _____
17. Speed of rotary compressors as compare to reciprocating compressors is_____
18. The volumetric efficiency of compressor with increase in compression will_____
19. The capacity of compression will be highest when its intake temperature is _____
20. In multi stage compression, the isothermal compression is achieved by_____

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Set No. 4

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Name: _____ Hall Ticket No.

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Answer All Questions. All Questions Carry Equal Marks. Time: 20 Min. Marks: 10.

I Choose the correct alternative:

1. Relief valve is a []
a. Direction control valve b. Flow control valve c. Pressure control valve d. None of these
2. The function of a pressure compensating valve is to []
a. Unload the system b. Cause operations in a sequential order
c. Maintain a constant level of pressure in a hydraulic circuit
d. To relieve excess pressure in a circuit
3. Which of the following axial fan types is most efficient []
a. Propeller b. Tube axial c. Vane axial d. Radial
4. Installing larger diameter pipe in pumping system results in reduction in []
a. Static head b. Frictional head c. Both a and b d. None of the above
5. For high flow requirement, pumps are generally operated in []
a. Parallel b. Series c. Both a and b d. None of the above
6. Friction losses in a pumping system is []
a. Proportional to $1 / Q$ b. Proportional to $1 / Q^2$
c. Proportional to $1 / Q^3$ d. Proportional to $1 / Q^4$
7. Throttling the delivery valve of a pump results in []
a. Increased head b. Increased power c. Decreased head d. Both a and b
8. The operating point in a pumping system is identified by []
a. Point of intersection of system curve and efficiency curve
b. Point of intersection of pump curve and system curve
c. Point of intersection of pump curve and theoretical power curve
d. Cannot be determined by the pump characteristic curves
9. Small by-pass lines are sometimes installed to []
a. Control the flow rate b. Control the pump delivery head
c. Reduce pump power consumption d. Prevent the pump from running at zero flow
10. A control valve is a device used for regulating []
a. pressure of flowing fluid b. direction of flowing fluid c. flow of fluid d. a, b and c

Cont.....2

II Fill in the blanks

11. The maximum delivery pressure in a rotary compressor is _____
12. The parameter used by ASME to define fans, blowers and compressors is _____
13. The efficiency of backward curved fans compared to forward curved fans is _____
14. In Aero plane, type of rotary compressor used is _____
15. Speed of rotary compressors as compare to reciprocating compressors is _____
16. The volumetric efficiency of compressor with increase in compression will _____
17. The capacity of compression will be highest when its intake temperature is _____
18. In multi stage compression, the isothermal compression is achieved by _____
19. Rotary compressor is best suited for _____
20. Volumetric efficiency for reciprocating air compressor is about _____

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