

1258

Code : 15AT41T

Register
Number

--	--	--	--	--	--	--

IV Semester Diploma Examination, April/May-2018

FLUID POWER TRANSMISSION & CONTROL SYSTEM

Time : 3 Hours]

[Max. Marks : 100

Note : Answer any six questions from Part – A and any seven questions from Part – B.

Published By:

PART – A

1. Sketch the block diagram of hydraulic system. 5
2. Explain the importance of fluid power engineering in industries. 5
3. Write the classification of valves based on construction. 5
4. List the different pumps used in hydraulic system. 5
5. What are the properties of air ? 5
6. Write the necessity of air receiver. 5
7. Draw the symbols of following pneumatic components : 5
 - (i) Air compressor
 - (ii) Lubricator
 - (iii) 2/2 Valve (DCV)
 - (iv) Double acting cylinder
 - (v) Filter
8. Write the common faults in pneumatic system. 5
9. Compare features of hydraulic & pneumatic system. 5

PART – B

10. Explain the working of pressure reducing valve with a neat sketch. 10
11. Explain the working of double acting actuator with a neat sketch. 10
12. Explain the working of 4/2 DCV with a neat sketch. 10
13. (a) Explain gas loaded accumulator with a neat sketch. 5
(b) Explain the visual checks procedure of oil. 5
14. Explain meter in speed control circuit with a neat sketch. 10
15. Explain the construction and working of Gear Pump with a neat sketch. 10
16. Explain the construction and working of vane type compressor with a neat sketch. 10
17. (a) Explain the necessity of FRL unit. 5
(b) Draw basic pneumatic circuit and label the components. 5
18. Explain speed control circuit of double acting cylinder with a sketch. 10
19. Illustrate Intensifier as an alternate to pump in air over oil intensifier circuit with a neat diagram. 10