

Module-4

- 7 a. Define pneumatic system. Explain the characteristics of compressed air. (06 Marks)
b. With neat sketch and explain end position cushion arrangement in pneumatic cylinder. (08 Marks)
c. What are the difference between hydraulics and pneumatic system? (06 Marks)

OR

- 8 a. What are the classification of pneumatic valves and explain with symbolic representation of different types of flow control valve. (10 Marks)
b. Explain with neat sketch supply air throttling and exhaust air throttling (10 Marks)

Module-5

- 9 a. With neat sketch and explain how the following function are generated in pneumatic system:
(i) AND gate (10 Marks)
(ii) OR gate. (10 Marks)
b. Explain with neat sketch working of time dependent control circuit. (10 Marks)

OR

- 10 a. Explain with neat sketch cascading method. (10 Marks)
b. Explain with neat sketch solenoid controlled pilot operated Directional Control Valve (DCV). (10 Marks)

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