

(Any four)

Q26. accessories used in pneumatic system along with function.

1) Air Compressor

- Air Compressor is a pneumatic tool that converts the air into compressed air.
- This pressurized air is then used throughout the pneumatic system.
- There are many types of air compressors available to meet ~~our~~ desired pressure & flow rate of air.
- The diff types of air compressor are piston, rotary, centrifugal & axial flow.

2) Receiver (Storage reservoir)

- It receives air from compressor & store it in reservoir.
- Storage reservoir can smooth the flow of air & keep it cool as it enters tank.
- To compensate for the loss of air, ~~the~~ air it stores the compressed air under higher pressure.

3) Direction Control Valve

- It is an imp component because they stop & change the direction of air.
- They control the direction of airflow in order to move the actuator.

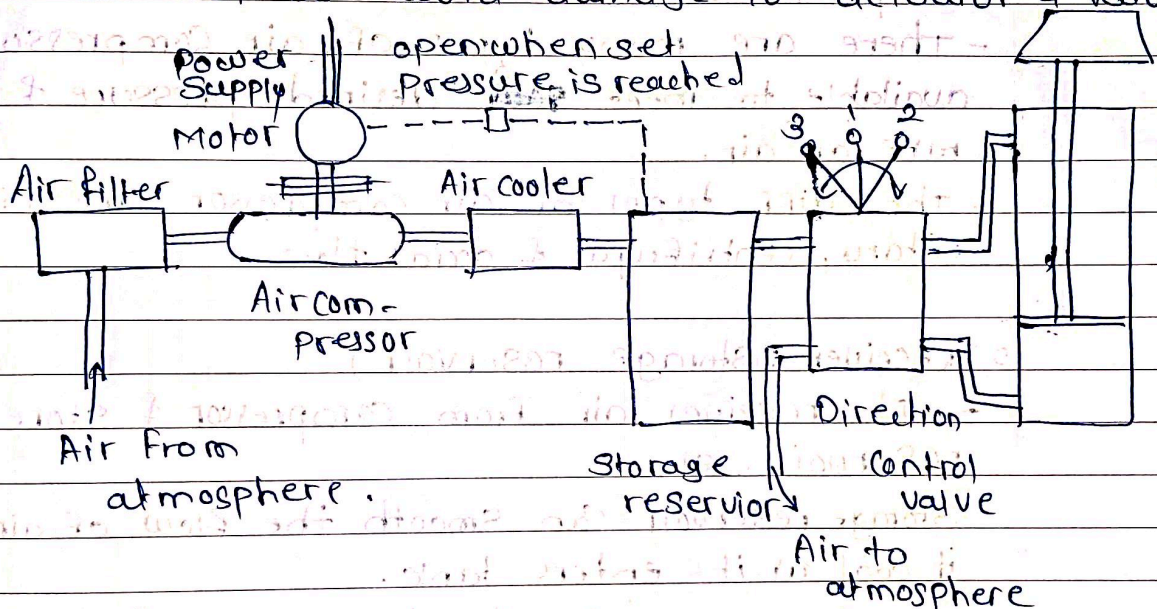
4) Air Actuator

- used to convert fluid power to mechanical power to do useful work.

- This can be in form of air cylinders or even robotic arms that move.
- most actuators move in a straight linear path

Q5) Air Filter:

- It used to remove any foreign particles.
- It helps to keep system clean & efficient as well as avoid damage to actuator & valve.



Q29. Comparison betⁿ Computer Controlled system & PLC Controlled system.

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- 1) PLCs & Computers are similar but PLCs perform discrete & continuous control functions that a computer can't.
- 2) A PLC usually follows a scan-based program execution, whereas computer usually event driven.

- 3) PLC controlled system designed for harsh condⁿ with electrical noise, magnetic field, extreme temp & or humidity & Computer Controlled system are not for harsh environment.
- 4) PLC is friendlier to technicians since they are in ladder logic & have easy connections. But in computers, connecting I/O to the PC is not always as easy.
- 5) PLC controlled system execute a single program in sequential order & they have better ability to handle events in real time. whereas, computer controlled system handle simultaneous task & they have difficulty handling real time events.
- 6) PLC ~~has~~ has less chances of crash over long period of time. & computers ~~crash~~ crashing is frequent.
- 7) In PLC, languages are typically fixed to ladder logic, or function block & ~~in PC's~~, computers are very flexible & powerful in what to use for programming.
- 8) In PLC, memory is limited in its ability to store a lot of data. & ~~in~~ computer, any long term data storage, history & ~~tree~~ trending is best.