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Roll No. .....

3rd Year / Advance Diploma in Tool & Die Making

Subject:- Hydraulics and Pneumatics

Time : 3Hrs. M.M. : 50

SECTION-A

Note: Multiple choice questions. All questions are compulsory (5x1=5)

Q.1 Valves are mainly

a) Direction control valves

b) Pressure control valves

c) Flow control valves

d) All of the above

Q.2 Which one of the following is a type of actuator in a hydraulic system?

a) Pump b) Valve

c) Strainer d) Cylinder

Q.17 Write down the advantages of Pneumatic system.

Q.18 Draw the layout of a basic Pneumatic system with complete labelling.

SECTION-D

Note: Long answer type questions. Attempt any one questions out of two questions. (1x10=10)

Q.19 Write is hydraulic actuator. Explain with neat sketch.

Q.20 Explain the construction of air compressor.

Q.3 Write the SI units of specific gravity _____

a) Newton b) Newton metre

c) No unit d) Meter

Q.4 Flow of fluids takes place due to its

a) Viscosity

b) Compressibility

c) Surface tension

d) Deformation under shearing force

Q.5 Which type of motion transmitted by hydraulic actuator?

a) Linear motion b) Rotary motion

c) Both a and b d) None of these

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (5x1=5)

Q.6 State Boyle's law.

Q.7 Define specific volume of fluid.

Q.8 What do you mean by viscosity?

Q.9 Write the function of air filter in pneumatics.

Q.10 What are the types of actuators?

SECTION-C

Note: Short answer type questions. Attempt any six questions out of eight questions. (6x5=30)

Q.11 Write any five characteristics of pneumatic system in engineering field.

Q.12 Explain the elements of Hydraulics & Pneumatics with the help of diagram.

Q.13 Differentiate between pneumatics system and Hydraulic system.

Q.14 Explain five applications of Pascal's law.

Q.15 How are the control valve classified?

Q.16 Explain the working principle of hydraulic pumps.