Printed Pages : 3

EMT601

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 141601

Roll No.

B. Tech.

(SEM. VI) THEORY EXAMINATION, 2014-15

PNEUMATICS & HYDRAULICS

Time : **3** Hours]   [Total Marks : **100**

SECTION - A

Part - A

Attempt all parts of following question.   **4×5=20**

    (1)   Explain Newton's law of viscosity?

    (2)   Difference between steady and unsteady flow.

    (3)   Explain gear pump. What are the advantages?

    (4)   Explain lobe pump. What are the major advantages over other?

    (5)   Explain solenoid valve and its use.

SECTION - B

Part - B

Attempt **any two** questions.   **2×10=20**

(1)   Difference between shuttle valve and pressure reducing valve.

(2)   what is cylinder cushion? What is its purpose?

(3)   Explain any two control valves with diagram.

SECTION - C

Part - C

Attempt **any two** questions.   **2×10=20**

(1)   Describe 'meter-in' and 'meter- out' circuit in speed control system.

(2)   What is difference between single acting and double acting cylinder?

(3)   What is servo valve? What does it works?

SECTION - D

Part - D

Attempt **any two** questions.   **2×10=20**

(1)   Write shorts on air filter and air regulator?

(2)   Describe air motor. What are the difference between air motor and electric motor?

(3)   Explain air-oil reservoir. What are its requirements?

SECTION-E

Part - E

Attempt **any two** questions.   **2×10=20**

(1)   Explain the common problem in pneumatic system.

(2)   What is four-way, spring centered, three position valve?

(3)   Write short notes on pipe fitting and cylinder mounting.

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