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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(AE) (2011 Onwards) (Sem.-7,8)

HYDRAULIC AND PNEUMATIC SYSTEM FOR AUTOMOBILE

Subject Code : BTAE-701

Paper ID : [A2932]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**I. Write briefly :**

- a. State the Pascal's law.
- b. What is pump?
- c. What is accumulator?
- d. What is check valve?
- e. Differentiate pressure control and pressure relief valve.
- f. Write the function of solenoid valve.
- g. What is the need for pressure control valve?
- h. Name the various types of filters used in pneumatics.
- i. What is an actuator?
- j. What is a Pneumatic Vacuum System?

SECTION-B

2. Explain oil intensifier system.
3. Explain the hydraulic and pneumatic fluid power system.
4. Explain the neat sketch of weight loaded accumulator.
5. Explain the synchronizing circuit.
6. Differentiate between manual and automatic control.

SECTION-C

7. Explain with neat diagrams closed loop (servo) electro hydraulic control system and open loop hydraulic system.
8. Construct a double pump hydraulic circuit employed in a punching press and explain how it functions.
9. With the help of circuits, explain how synchronizing of two linear actuators are achieved by connecting them in parallel.