

Roll No.

Total No. of Pages :02

Total No. of Questions : 09

B.Tech. (AE) (2012 to 2017) (Sem.-7)
HYDRAULIC & PNEUMATICS SYSTEM FOR AUTOMOBILE

Subject Code : BTAE-701

M.Code : 71817

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION 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

1. Write briefly :

- a) List types of fluid used in Automobiles.
- b) Define Pascal's law.
- c) Draw hydraulic symbol of motor.
- d) Name different pumps used in hydraulic systems.
- e) Draw the symbol of pilot-operated check valve.
- f) Compare hydraulic and electric motor.
- g) What are different types of filters used in hydraulic systems?
- h) Define PID.
- i) Write short Note on direct analog.
- j) What are advantages of Automatic control?

SECTION-B

2. Draw and explain hydraulic circuit for speed control circuit.
3. Explain working of hydraulic double acting cylinder.
4. Discuss in detail about Quick exhaust valve.
5. With the help of block diagram explain PID including an analytical treatment.
6. Write note on :
 - a) Mufflers
 - b) Filter

SECTION-C

7. Design hydraulic circuit for automatic cylinder reciprocating system.
8. Describe pneumatic circuit for control of a double acting hydraulic cylinder.
9. Explain in detail about :
 - a) Effect of temperature of fluid power.
 - b) Fluid temperature control.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.