190807

B.VOC. AUTOMOTIVE MECHATRONICS
Subject: Applied Hydraulics & Pneumatics
Subject Code: ABME-202
Semester: 4th (Regular)
Batch: 2017-20
Theory (External): 35 Marks
Time: 03 hours

Instructions to the Students

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 mark.
3. Section B comprises 6 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number

SECTION –A (OBJECTIVE TYPE QUESTIONS)

(10x1=10 Marks)

Q1 All questions are compulsory

a) What do you mean by compressible fluid?

b) State Pascal Law.

c) What is non-positive displacement pump?

d) Write any two materials of hydraulic pipes.

e) What do you understand by term bulk modulus of gas?

f) What is stagnation pressure?

g) What do you mean by circulatory flow?

h) Define cavitations.

i) What is advantage of sequencing circuit?

j) Where speed control circuits are required?

SECTION –B (ESSAY TYPE QUESTIONS)

(5x5=25 Marks)

Q1 State and derive the Bernoulli's equation in three dimensions.

Q2 Explain the working and applications of Hydraulic Actuators.

Q3 Discuss the properties and applications of compressible fluid.

Q4 With the help of neat sketch explain construction working of Pneumatic Cylinders

Q5 Explain the working of Solenoid valves with its applications.

Q6 Write short notes on designing of hydraulic and pneumatic circuits.

*****END OF PAPER*****