C14-M -**505**

4653

BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DME - FIFTH SEMESTER EXAMINATION

FLUID POWER CONTROL SYSTEMS

Time: 3 Hours] [Max. Marks : 80

PART -A

10X3=30M

Instructions: 1) Answer **all** questions. Each question carries **three** marks.
2) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1) List the basic components of hydraulic system.

2) State the any four differences between hydraulic and pneumatic system.

3) Classify the various types of hydraulic acturators.

4) Write any three functions of Flow control valves.

5) Write short notes on needle type Non-pressure compenstaed flow control valve.

6) What are the factors to be considered for designing hydraulic circuit?

7) Draw the neat sketch of pneumatic system and Label the parts.

8) State the any two advantages and disadvantages of pneumatic system.

9) Write short notes on diaphragm cylinder.

10) State the function of pneumatic circuit.

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PART-B

5X10=50M

Instructions: 1) Answer any **five** questions.

2) Each question carries **ten** marks.

3) Answers should be comprehensive and the critertion for valuation is the content but not the length of answer.

11) Draw a neat sketch of internal gear pump and explain its working. Also write advantages and disadvantages of internal gear pump.

12) Classify the hydraulic motors and explain the hydraulic pistion motor with neat sketch.

13) Explain the (a) telescopic and (b) Tandem cylinder with diagrams.

14) What is solenoid? Describe the working princple of solenoid actuated check valve with a neat sketch.

15) Describe the operation of pressure reducing valve with neat diagram.

16) Draw and explain safety circuit for protection against overload.

17) Explain the construction and working principle of single acting pneumatic cylinder with neat sketch.

18) Explain the direct and indirect control of single acting cylinder.

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