

**CERTIFICATE IN CONDITION
MONITORING (CCOMO)
Term-End Examination
June, 2025**

MET-002 : MECHATRONICS

Time : 3 Hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. Explain in detail the testing of dynamic response. 10
2. Describe the various types of discrete event sensors. 10
3. Describe the working of a gear pump with a neat sketch. 10
4. Differentiate between the following : 5+5
 - (a) Pressure relief valve and Pressure reducing valve
 - (b) Air amplifier and Intensifier

[2]

5. Discuss various methods of speed control of a DC motor in detail. 10
6. Explain the operation of relays with the help of a schematic diagram. 10
7. Describe the microprocessor based system with bus architecture. 10
8. Explain in detail the *two* types of data transfer techniques used in computer interfacing. 10
9. Write short notes on any **two** of the following : 5+5
 - (a) Wrist sensors
 - (b) Servo valve
 - (c) Transistor
 - (d) PID Controller

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