QP Code : **5250**

(3 Hours)   [Total Marks : 80

N.B. : (1) Question No. **1** is compulsory.
  (2) Solve any three questions from remaining.

1. Solve any **four** :—
  (a) Compare Electronic Voltmeter & Conventional Analog Voltmeter. 5
  (b) Draw Schering Bridge. List applications of it. 5
  (c) Define transducer. List different types of transducers. 5
  (d) Explain generalized data acquisition system in brief. 5
  (e) Explain sensitivity of voltmeter with one example. 5

2. (a) Explain strain gauge transducer. Derive its gauge factor. 10
  (b) Explain capacitive transducer for displacement measurement. Derive its 10
  expression.

3. (a) Compare RTD and Thermocouple with construction, working & application 10
  (b) List flow meters. Draw and explain ultrasonic flow meter in detail state 10
  advantage of it.

4. (a) Draw and explain low, medium and high resistance measurement techniques 10
  in detail.
  (b) Draw and explain Maxwell's bridge. Write its advantages, disadvantages 10
  and applications

5. (a) Explain the importance of Lissaious figures in detection of frequency 10
  and phase.
  (b) Draw & explain DSO. Write the applications of DSO. 10

6. Write note on any two. 20
  (a) FET type voltmeter.
  (b) Liquid Level measurement application using LVDT.
  (c) Data logger.

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