

- N.B :**
1. Question No. 1 is compulsory.
  2. Attempt any 3 out of remaining 5 questions.
  3. Figures to the right indicate full marks.

1. Attempt any **four** : **20**
    - (a) Define sensitivity, Deadzone, error, linearity, span
    - (b) Write short note on thermister
    - (c) Explain transducer with its type
    - (d) What is I to V converter explain in detail
    - (e) Compare open loop and closed loop control system.
  2.
    - (a) Explain electronic PI controller. **10**
    - (b) Explain use of OP-Amp in converters. **10**
  3.
    - (a) Compare time domain and frequency domain specifications. **10**
    - (b) Explain SCADA in detail. **10**
  4.
    - (a) Explain detail pH measurement system. **10**
    - (b) Explain DAS in detail. **10**
  5.
    - (a) What is signal conditioning, why there is need of signal conditioning. **10**
    - (b) Explain PLC in detail. **10**
  6.
    - (a) Explain different types of input signals used in control system. **10**
    - (b) Explain strain gauge in detail. **10**
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