

---

Answer any FIVE Questions All Questions carry equal marks

1. (a) Differentiate Telemetry from communication, information theory, Data processing and Instrumentation.  
(b) Give an account of the significance of telemetry stating Telemetering milestones.
2. (a) Explain with a sketch how voltage is used to measure pressure in voltage Telemetry system.  
(b) Draw the sketch of torque balance Telemetry system and explain with one example.
3. With a neat circuit diagram, explain the frequency transmitter used in frequency telemetry system. Give the relation between O/p frequency and I/p voltage.
4. Explain the modulation techniques used in radio telemetry and explain how they help in signal processing.
5. Write short notes on:
  - (a) Group synchronization
  - (b) Word Sync Acquisition
  - (c) Frame Sync Acquisition.
6. How does energy loss occur in an optical fibre cable? What are the different types of such loss mechanisms? How can they be compensated?
7. Describe with a neat sketch Tele control installation with audio-channel transmission of several signals by frequency echelon.
8. List and briefly explain the environmental and interface conditions of Tele control apparatus.

@@@@@