

**Either:**

1. a) Explain PCM delta modulation and their feature in digital modulation. **8**
- b) Define Electronic communication system. Discuss it with the help of block diagram. **8**

**OR**

- c) Explain the sampling theorem and comment sampling in signal recovery. Also discuss flat top sampling in signal recovery. **8**
- d) Discuss mathematical interpretation of noise. What is the effect of noise in PCM and demodulation. **8**

**Either:**

2. a) Define mesh topology. Explain any one features of computer communication networks. **8**
- b) What is routing procedure? Discuss flooding and fix routing. **8**

**OR**

- c) Discuss computer communication system. Differentiate between packets and circuit switching network. **8**
- d) What are the types of networks? Explain communication network with following examples TYMNET, ARPANET, ISDN, LAN. **8**

**Either:**

3. a) Discuss memory paging in detail. **8**
- b) Explain the functional block diagram of 8086 microprocessor with pin position. **8**

**OR**

- c) Discuss minimum and maximum mode configuration of 8086. Explain clock generator (8284A). **8**
- d) Define memory segmentation. Explain t. state, m-state and execution cycle with timing diagram for 8086 microprocessor. **8**

**Either:**

4. a) Define UARA? Explain it with functional block diagram. **8**
- b) Explain interrupt structure and its expansion with 8259A PIC. **8**

**OR**

- c) Explain memory organization with its classification. How does address bus and data bus selection procedure configuration use in memory expansion. **8**
- d) Define interfacing. Discuss the pins used in interfacing with 8255 PPI. **8**

5. Attempt all the questions.
  - a) What are tree and bus topology? **4**
  - b) Explain carrier sense multiple access. **4**
  - c) Discuss 3 to 8 line decoder 7415138. **4**
  - d) Explain output signal to noise ratio in DM. **4**

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