

- Note:**
1. All questions are compulsory with internal choice.
 2. Draw neat diagrams wherever necessary.
 3. Figures to the right indicate full marks.

Q.1 Answer the following (any four) (20)

- (a) Explain the characteristics of the Data Communication System.
- (b) List the components of data communication. Explain Simple Duplex.
- (c) Write a short note on Multipoint Connection.
- (d) List the different Network Topology? Explain Ring topology.
- (e) Explain MAN in detail with examples.
- (f) Which are 4 different types of addressing?

Q.2 Answer the following (any four) (20)

- (a) What is the classification of line codes?
- (b) Write a short note on Sampling.
- (c) List the transmission modes. Explain Parallel Transmission.
- (d) Comparison between Coaxial cable and Twisted pair cable.
- (e) Explain unicast and multicast types of addresses.
- (f) What is switching? Which are the three methods of switching?

Q.3 Answer the following (any four) (20)

- (a) Write a short note on transmission impairments
- (b) Explain the switching concept?
- (c) Explain classful addressing.
- (d) Explain error classification?
- (e) Explain static algorithms.
- (f) Comparison between IPv4 and IPv6.

Q.4 Answer the following (any Five) (15)

- (a) Explain node and multicast.
- (b) What are the different ways to represent the Data?
- (c) Explain Periodic & Non Periodic Signals
- (d) Explain Source Node and Destination Node. How many bits are used for Host and Destination in Class C?
- (e) Write the full form and one feature of each 1) RIPv2 2) OSI 3) TCP/IP.
- (f) What is Data & Information?

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