

Paper-5: Data Communications

Time: 3 hours

Max. Marks: 80

SECTION -A

Answer All Questions.

4X15=60

- 1) a) Explain the concept of data communication and its protocols and standards.
(OR)
b) What is Network? Distinguish between local area network and a wide area network.
c) What is the difference between the communication of data and communication of information?
- 2) a) Explain the concept of OSI model. Explain the layers present in OSI model.
(OR)
b) Explain Analog digital, periodic and non-periodic signals.
c) Explain the parallel and serial modes of transmission.
- 3) a) Explain the concept of Digital Data Transmission.
(OR)
b) Explain Guided and Unguided media of transmission.
- 4) a) Explain multiplexing.
b) Distinguish between frequency-division and time-division multiplexing.
(OR)
c) Explain error detection and error correction.

SECTION-B

Answer any four questions.

4 x 5=20

- 5) Explain Topologies.
- 6) Explain TCP/IP protocol suite in OSI model.
- 7) Explain Cyclic redundancy check and advantages of cyclic codes.
- 8) Explain the Repeaters, Bridges, gateways and Routers.
- 9) Explain interfaces and Modems.
- 10) Explain Analog to Digital conversion.
- 11) Explain Physical and logical addressing.
- 12) Explain the concept of ICMP.