(CBCS) (16-17 and Onwards)
COMPUTER SCIENCE
BCA-501 : Data Communication and Networks

Time : 3 Hours Max. Marks : 100

Instruction : Answer all the Sections.

SECTION – A

Answer any ten questions. Each carries 2 marks. (10×2=20)

1. Write any two examples of data communication modes.
2. Expand NIC and TCP.
3. What are the two types of LAN standards?
4. What is a switch?
5. Write any two differences between analog and digital signals.
6. Define multiplexing.
7. Expand HDLC and PPP.
8. What is framing?
9. What is the use of repeaters?
10. Expand FDDI and CSMA.
11. What is ethernet?
12. What is meant by choke pocket?

SECTION – B

Answer any five questions. Each carries 5 marks. (5×5=25)

13. Explain the types of transmission modes.
15. Explain the concept of checksum.
16. Explain the types of errors.

P.T.O.
17. Write short notes on piggy backing.
18. Explain the channelization method of CDMA.
19. Differentiate datagrams with virtual circuits.
20. Explain the flooding algorithm.

SECTION – C

Answer any three questions. Each question carries 15 marks. (3×15=45)

21. a) Explain the types of networks. 7
    b) Explain the function of OSI model layers. 8

22. Explain the following:
    a) Pulse Code Modulation 5
    b) SONET multiplexing 5
    c) Coaxial cable. 5

23. Explain the following:
    a) CRC method 7
    b) Stop-and-Wait-ARQ algorithm. 8

24. a) Write short notes on ALOHA protocols. 7
    b) Explain CSMA protocols. 8

25. Explain the following:
    a) Dijkstra's algorithm 10
    b) Token bucket algorithm. 5

SECTION – D

Answer any one question: (1×10=10)


27. Explain the following:
    a) Modems 4
    b) Congestion control. 6