



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION – APRIL/MAY 2026

COMPUTER SCIENCE – IV SEMESTER BCA

25BCA43 – COMPUTER NETWORKS

Time: 3 Hours

Max. Marks: 80

Instruction: *Answer should be written completely in English.*

SECTION - A

Answer any **FIVE** questions. Each question carries **TWO** marks.

(5X2=10)

1. Define Computer Network.
2. Give four examples of unguided media.
3. What are the services provided by Data link layer?
4. What is Ethernet switching? Mention the methods of ethernet switching.
5. What is static routing?
6. What is network Security? Mention its objectives.
7. What is streaming?

SECTION - B

Answer any **SIX** questions. Each question carries **FIVE** marks.

(6X5=30)

8. Write a brief note on network devices with a neat diagram.
9. Write short notes on types of Networks with an example.
10. Write the IP address 222.1.1.20 mask 255.255.255.192 in CIDR notation with steps.
11. What is Address Resolution Protocol (ARP)? Explain ARP operation and ARP table.
12. Explain the concept of NAT with a neat diagram.
13. Write a brief note on Encryption in Network Security.
14. Explain the working of FTP protocol in file transfer.
15. Explain the concept of IMAP in detail.

SECTION - C

Answer any **FIVE** questions. Each question carries **EIGHT** marks.

(5X8=40)

16. Explain the OSI model layers with neat diagrams.
17. What is Transmission Media? Explain their types with neat diagram.
18. Explain Checksum with suitable example.
19. What is Sliding Window Protocol? Explain their types with an example.
20. Explain the characteristics and use cases of TCP.
21. Explain Congestion Control Algorithm with neat diagram.
22. Explain in detail about Network Applications.

