THIRD SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2023
(Regular/Improvement/Supplementary)

B.Sc. COMPUTER SCIENCE / BCA
GBCS3A02T: DATA COMMUNICATION AND OPTICAL FIBERS

Time: 2 ½ Hours   **Maximum Marks: 80**

SECTION A: Answer the following questions. Each carries *two* marks.

(Ceiling 25 Marks)

1. What is Bus Topology?
2. List the uses of Serial Transmission.
3. What is meant by ground propagation?
4. What is a network? Mention the benefits of the networks.
5. List the advantages of LED.
6. Write the advantages of multiplexing.
7. Define token bus?
8. What is frequency reuse?
9. Define GPRS and list its services.
10. Write the features of cellular system.
11. Define Line Discipline.
12. What is Bit Oriented Protocol?
13. Define ISDN.
14. Mention any two applications of optical fiber communication.
15. List any two major advantages of single mode fiber.

SECTION B: Answer the following questions. Each carries *five* marks.
(Ceiling 35 Marks)

16. For n devices in a network, what is the number of cable links required for a mesh and ring topology.
17. Explain analog to digital transmission.
18. Define cellular system. Explain its features.
19. Does FDM need synchronization? Why?
20. What is Symmetrical Configuration?
21. Explain packet switching.
22. Discuss the advantages of optical fiber communication systems.
23. Explain fiber profile.

SECTION C: Answer any *two* questions. Each carries *ten* marks.

24. Elaborate on;   a) Guided medium   b) Radio waves
25. Explain frequency reuse and channel assignment strategies.
26. Explain LAN in detail.
27. Draw and explain the block diagram of an optical communication system.

(2 x 10 = 20 Marks)