

23U411

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Name :

Reg. No :

FOURTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2025

(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U BCS4 A13 / CC19U BCA4 A13 - DATA COMMUNICATION AND OPTICAL FIBERS

(Computer Science / Computer Application - Common Course)

(2019 Admission onwards)

Time: 2.5 Hours

Maximum: 80 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Short note on encoding.
2. Define cable modems.
3. Explain transmission impairment.
4. List down the applications of multiplexing.
5. What is GSM?
6. Explain piggybacking.
7. List down the link access procedures.
8. Define LAN.
9. Explain packet switching.
10. Define ISDN.
11. What do you mean by optical fibre communication.
12. Explain Refraction.
13. Define Ray theory.
14. Define single mode fibre.
15. Define total internal reflection.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

Answer *all* questions. Each question carries 5 marks.

16. Define Point-to-Point line configuration.
17. Write about different types of connections.

18. Briefly explain one to many and many to one multiplexing.
19. Write about Frequency Division Multiplexing.
20. Explain the concept of token ring.
21. Write down the advantages and disadvantages of optical fibre communication.
22. Write short note on optical fibre waveguides.
23. Explain LED and its types.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any *two* questions. Each question carries 10 marks.

24. What do you mean by Data communication. Explain its components with diagram.
25. List down the different types of topologies and explain in detail.
26. Write down the characteristics of GSM and explain its architecture.
27. What do you mean by Data link Control. Explain flow control and error control.

(2 × 10 = 20 Marks)
