22U411 (Pages: 2) Name: .....

Reg.No: .....

FOURTH SEMESTER B.Sc./B.C.A. DEGREE EXAMINATION, APRIL 2024

(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. Write down any five protocols.
2. Define Half Duplex.
3. What are cable modems?
4. Explain tranmission impairment.
5. Define cellular system.
6. Define mobile communication.
7. Define framing.
8. Explain Ethernet.
9. What do you mean by packet switching?
10. Explain ISDN.
11. Write down the benefits of optical fibre communication.
12. What is meant by optical detectors?
13. Explain the concept of Ray theory.
14. Explain single mode fibre.
15. Explain total internal reflection.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

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

16. Write about Composite Signals.

17. Different methods for Digital signal transmission.
18. Briefly explain one to many and many to one multiplexing.
19. Write about Time Division Multiplexing.
20. Explain the concept of token ring.
21. What is Switching and what are the different types of Switching Techniques?
22. Explain optical fibre waveguides.
23. Define LED. Explain its advantages.

(Ceiling: 35 Marks)

Part C (Essay questions)

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

24. In detail explain data communication and its components with neat diagram.
25. Write down the different types of topologies in network. What are the advantages of each topologies?
26. What are the characteristics of GSM. With neat diagram explain GSM system Architecture.
27. Explain Data link Control. Also Explain flow control and error control.

(2 × 10 = 20 Marks)

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