



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – APRIL 2013

CS 5506 - INTRODUCTION TO DATA COMMUNICATION

Date: 11/05/2013
Time: 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART - A

ANSWER ALL THE QUESTIONS:

(10 x 2 = 20 marks)

1. What are the criteria for the data communication network ?
2. Define point - to-point line configuration.
3. What is meant by open system?
4. Define Frequency.
5. What are the types of encoding?
6. What is Manchester encoding?
7. What are the uses of optical fiber?
8. Define Reflection.
9. Define Multiplexing.
10. What is meant by single-bit error?

PART-B

ANSWER ALL THE QUESTIONS:

(5 x 8=40 marks)

11. a) What is the difference between half-duplex and full duplex transmission modes?
(Or)
b) List out the different categories of networks and explain any two of them.
12. a) Differentiate bit interval and bit rate.
(Or)
b) Explain the services of the transport layer and session layer.
13. a) Explain in detail about Data Terminal Equipment(DTE) and Data Circuit-Terminating Equipment.
(Or)
b) Write a note on a functional specification of EIA-232 standard with diagram.
14. a) Write down any four specifications of the major Bell Modems.
(Or)
b) Explain the advantages and disadvantages of optical fiber.
15. a) Discuss in detail about the Frequency -Division Multiplexing.
(Or)
b) Explain in detail about the redundancy and multiple-bit error correction.

ANSWER ANY TWO QUESTIONS

16. a) Explain the topologies with an example.

- i) Bus
- ii) Star

b) What are the advantages of distributed processing?

17. a) Discuss in detail about the services offered by Data link layer and Network layer.

b) Describe the types of polar encoding used in digital-to-digital conversion.

18. a) What are the categories of analog services available to telephone subscribers? Explain in detail.

b) Explain in detail about the checksum methods.

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