LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – APRIL 2010

CS 5506 - INTRODUCTION TO DATA COMMUNICATION

Date & Time: 29/04/2010 / 1:00 - 4:00 Dept. No. Max. : 100 Marks

PART - A

Answer **ALL** the Questions (10 x 2 = 20 marks)

1. List the components of a computer network.
2. What do you mean by Topology?
3. What is meant by periodic signals?
4. Discuss the need for application layer
5. Give the importance of DCE interface
6. What do you mean by data transmission?
7. What is transmission rate?
8. Enumerate the advantages of Guided media.
9. What is multiplexing?
10. Discuss the different types of errors.

PART – B

Answer **ALL** the questions (5 x 8 = 40 marks)

11. a) Discuss briefly the protocols and standards

(OR)

b) Describe the categories of networks

12. a) What are periodic signals? Explain in brief.

(OR)

b) Write a note on Digital signals, how they differ from analog signals?

13. a) Discuss briefly the Digital Data Transmission

(OR)

b) Write a note on EIA232 Standard

14. a) Describe in detail the need for optical fiber media

(OR)

b) Write a note on modem standards

15. a) Discuss in detail the Time-Division Multiplexing.

(OR)

b) Write a detailed note on Error correction. **(P.T.O)**

PART – C

Answer any **TWO** questions (2 x 20 = 40 marks)

16. a) Explain the following topologies: (i) star (ii) Mesh.

    b) Discuss the services offered by various layers in the OSI reference model. Sketch the model.

17. a) Explain Digital to Analog Transmission.

    b) Discuss the various transmission media in detail.

18. a) Explain frequency division multiplexing in detail.

    b) Explain error detection methods for single bit errors.

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