LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – NOVEMBER 2014

CS 5506 - INTRODUCTION TO DATA COMMUNICATION

Date : 05/11/2014   Dept. No.   Max. : 100 Marks
Time : 09:00-12:00

PART – A

Answer ALL the questions: (10 x 2 = 20 marks)

1. Define protocol.
2. Define Internet.
3. What are the services provided by presentation layer?
4. Write any two differences between analog and digital signals.
5. What is meant by data encoding?
6. What is EIA-232 interface?
7. What is parallel transmission?
8. Differentiate Radio wave and micro wave.
9. What is the purpose of guard band?
10. What is meant by burst error?

PART – B

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

11. a) List and Explain about the components involved in data communication system.
                              (OR)
    b) Explain about the following:
        i) Line configuration ii) Transmission mode.

12. a) Write down the basic functionalities provided by OSI model.
                              (OR)
    b) Write down the characteristics of simple analog signals.

13. a) Explain digital data transmission.
                              (OR)
    b) Write notes on EIA232 standards.

14. a) Explain about the modem standards in detail.
                              (OR)
    b) Explain guided media and its types.

15. a) Explain about the Frequency Division Multiplexing.
                              (OR)
    b) Write about the Error detection techniques.

PART – C

16. a) Explain in detail about different network topologies. Mention the advantages and disadvantages of each.

    b) Explain the services provided by Physical Layer and Network Layer.

17. a) Discuss in detail the Data Terminal Equipment.

    b) Explain the characteristics, usage and performance of optical fiber in communication.

18. a) Explain error correction methods in detail.

    b) Explain the analog services and digital services provided by telephone systems.

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