LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

FIFTH SEMESTER – APRIL 2016

CA 5506 – INTRODUCTION TO DATA COMMUNICATION

Date: 30-04-2016   Dept. No.   Max. : 100 Marks
Time: 09:00-12:00

Part A

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

1. Give the components of Data Communication Systems.

2. Define the key elements of a protocol.

3. What is an Interface?

4. Define Aperiodic and Periodic Signal.

5. Differentiate Manchester and Differential Manchester Encoding.

6. Define DTE and DCE.

7. What is Bandwidth?

8. Define multimode with its types.

9. What is conditioned lines?

10. State the types of Errors.

Part B

Answer ALL the Questions   **(5 * 8 = 40)**

11. Discuss about the three Network Criteria.

(or)

Define the types of transmission modes and categories of networks.

12. Define Analog Signal. Explain its characteristics.

(or)

Write short notes on Digital Signal. A Digital signal has a bit interval of 40 microseconds.

What is the bit rate?

13. Elaborate on Bipolar Encoding.

(or)

Explain the modes how binary data are transmitted across a link.

14. Discuss about Bell Modems.

(or)

Give the advantages and disadvantages of Optical Fiber.

15. Explain Frequency division multiplexing.

(or)

Write notes on the digital services offered by a Telephone system.

Part C

16. (a) Define Topology. Explain its types with a neat diagram.

    (b) Explain the functions of the Layers in OSI Model.

17. (a) Explain the various ways to accomplish Analog to analog modulation.

    (b) Write short notes on any two unguided media.

18. (a) Discuss about Synchronous TDM.

    (b) Explain Single Bit Error Correction.

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