LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

FIFTH SEMESTER – **NOVEMBER 2015**

CS 5506 - INTRODUCTION TO DATA COMMUNICATION

Date : 26/09/2015   Dept. No.   Max. : 100 Marks
Time : 09:00-12:00

PART – A

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

1. What are the factors to measure the performance of a network?

2. Name the five basic network topologies?

3. Name the services provided by the application layer.

4. Give the examples for periodic and a periodic signals.

5. What is a minimum required bandwidth for ASK and PSK.

6. List out the categories of digital-to-digital encoding.

7. What does the term Null Modern stands for?

8. What are the disadvantages of optical fiber as a transmission medium?

9. What is inverse multiplexing?

10. What is cyclic redundancy check?

PART – B

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

11. a) What is protocol?   Explain about their key elements.
                        (OR)
    b) Explain about point-to-point and multipoint line configuration.

12. a) Write short notes on the services provided by application layer?
                        (OR)
    b) Explain about measurement of amplitude.

13. a) Explain Bipolar 8-zero substitution with an example.
                        (OR)
    b) Explain about modem concepts with neat diagram.

14. a) Explain about coaxial cable standards.
                        (OR)
    b) Write short notes on Geosynchronous satellites.

15. a) Explain the interleaving process of synchronous TDM.
                        (OR)
    b) Explain about hamming code.

PART – C

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

16. Explain about the architecture and functions of each layer in the OSI model.

17. a) Discuss about digital-to-digital conversion with block diagram.

    b) Discuss in detail about guided media.

18. a) Discuss in detail about cellular telephony system with a diagram.

    b) Explain any two types of redundancy checks used in data communication.

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