



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc., DEGREE EXAMINATION – COMPUTER SCIENCE

FIFTH SEMESTER – NOVEMBER 2013

CS 5506 – INTRODUCTION TO DATA COMMUNICATION

Date : 09/11/2013
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 fundamental characteristics of effective data communication?
2. Define internet and Internet.
3. What is a peer-to-peer process?
4. What is the difference between periodic and aperiodic signal?
5. What is digital to analog modulation?
6. What is EIA-232 interface?
7. What is Modem?
8. What is handoff in cellular telephony?
9. What is the purpose of guard band?
10. Write about types of errors?

PART – B

Answer ALL the questions:

(5 X 8 =40 marks)

11. a) Explain various components of data communication systems?
(OR)
b) Explain about the following:
i) Line configuration ii) Transmission mode.
12. a) Explain about Analog signals in detail.
(OR)
b) Explain about the digital signals in detail.
13. a) Explain about the analog to analog conversion of data.
(OR)
b) Explain about the DTE-DCE interface.
14. a) Write a detailed note on Modem Standards.
(OR)
b) Write a brief note on satellite communication.
15. a) Explain in detail about the frequency division multiplexing.
(OR)
b) Explain the following error detection mechanisms.
i) CRC ii) Checksum.

PART – C

Answer any TWO questions:

(2 X 20 =40 marks)

16. a) Discuss in detail about the Ring and Tree topology.
b) Discuss in detail about the functions of OSI layers.
17. a) Explain in detail about digital data transmission?
b) Explain about the following :
i) Twisted pairs ii) Coaxial cables.
18. a) Explain about Time-Division multiplexing in detail.
b) Explain in detail about Error correction mechanisms.

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