



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc.DEGREE EXAMINATION –COMPUTER SCIENCE

FOURTH SEMESTER – APRIL 2019

16/17UCS4ES01– DATA COMMUNICATION AND NETWORKS

Date: 09-04-2019
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART-A

ANSWER ALL QUESTIONS:

(10X2=20)

1. Define and classify networks.
2. Define IP address.
3. What is Analog signal?
4. Define Amplitude.
5. Define DTE-DCE interface.
6. Expand B8ZS and HDB3.
7. What does analog leased service offer?
8. Define Modem.
9. Mention the different types of Bridges.
10. What is a Repeater?

PART-B

ANSWER ALL QUESTIONS:

(5X8=40)

11. a) What are the components of data communication? Explain with a diagram.
(OR)
b) What is transmission mode? Explain its types with suitable examples and diagrams.
12. a) Distinguish between Periodic and Aperiodic signals.
(OR)
b) Enumerate the characteristics of digital signal with diagrams.
13. a) Explain Serial transmission of digital data in detail.
(OR)
b) Discuss about Biphase encoding methods.
14. a) Explain the working of Cellular telephony.
(OR)
b) How can you correct the errors using Hamming code? Explain with example.
15. a) Write a short note on Domain Name System.
(OR)
b) Explain about Simple Network Management Protocol.

PART-C

ANSWER ANY TWO:

(2X20=40)

16. a) What is topology? Discuss about different types of topologies with a neat diagram.
b) Explain the functions of the Transport Layer, Session Layer and presentation layer in the OSI reference model.
17. a) Illustrate the functioning of EIA 232 with a neat sketch.
b) Discuss in detail about the different types of Guided media.
18. a) Explain the following: a) FTP b) SMTP.
b) List the Error detection methods and explain any two in detail.
