



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

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

**FOURTH SEMESTER – APRIL 2022**

**16/17/18UCS4ES01 – DATA COMMUNICATION AND NETWORKS**

Date: 23-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

**PART – A**

**Answer ALL Questions**

**(10x 2 = 20 Marks)**

1. What is a network?
2. Define Protocol.
3. Write the difference between periodic and aperiodic signals.
4. What is analog signal?
5. What is encoding?
6. Write about DTE –DCE interface.
7. What is modem?
8. Draw a neat diagram of coaxial cable and label it.
9. What is repeater?
10. What is domain name system?

**PART – B**

**Answer all Questions**

**(5 x 8 = 40 Marks)**

11. a) Briefly describe the network's standards and protocols.  
(OR)  
b) What is network? Explain the categories of network.
12. a) Explain simple analog signals with examples  
(OR)  
b) With examples, briefly explain complex analog signals.
13. a) Write in brief about analog to analog encoding.  
(OR)  
b) Describe the process of digital data transmission.
14. a) Write about any two guided media with a neat diagram.  
(OR)  
b) Explain about unguided media with examples.
15. a) Explain about link state routing algorithm.  
(OR)  
b) Write about simple mail transfer protocol.

**PART – C**

**Answer any Two Question**

**(2 x 20 = 40 Marks)**

16. a) What is topology? Discuss in detail about its types with neat diagram.  
b) Discuss the functions of OSI model in detail
17. a) Explain the conversion of digital to digital transmission.  
b) Summarise error detection with examples.
18. a) Explain in detail about Routing devices  
b) Discuss about Simple Network Management Protocol

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