LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

THIRD SEMESTER – **APRIL 2016**

CA 3807 - DATA COMMUNICATION AND NETWORKS

Date: 28-04-2016
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

PART – A

Answer all Questions: 10 x 2 = 20

1. Define protocol. What are its key elements?

2. What are the criteria of network?

3. List the types of errors? Give examples.

4. What are the categories of connecting devices?

5. What are the steps involved in ARP?

6. Differentiate multicasting and multiunicasting.

7. Define URL. Mention its components.

8. What is SIP? List its messages.

9. What are the goals of security?

10. What are the protocols of SSL?

PART – B

Answer all Questions   5 x 8 = 40

11.a. Explain the different types of unguided transmission media.

OR

   b. Explain briefly the polar encoding schemes.

12.a. Explain the hidden and exposed terminal problems and how MACA avoids them?

OR

   b. Explain the networks piconet and scatternet.

13.a. Define DHCP. Explain its Transition diagram.

OR

   b. Explain the components of the TCP state transition diagram.

14.a. Elucidate the video compression MPEG .

OR

   b. Write short notes on mail transfer phases.

15.a. Illustrate DES algorithm.

OR

   b. Write short notes on the types of security attacks.

PART – C

Answer any TWO Questions   **2 X 20 = 40**

16. Explain the following:

      i. OSI Model   **(14 marks)**

      ii. types of topology   **(6 marks)**

17.a. Explain in detail the physical layer specifications of Ethernet.

   b. Discuss in detail the random access and control access protocols.

18.a. Explain in detail streaming stored audio/video.

   b. Explain QoS characteristics and the techniques to improve it.

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