



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

THIRD SEMESTER – NOVEMBER 2015

CA 3807 - DATA COMMUNICATION AND NETWORKS

Date : 06/11/2015

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

PART – A

Answer all Questions

10 x 2 = 20

1. What are the fundamental characteristics of data communication system?
2. What are the criteria of network?
3. List the types of errors? Give example.
4. Differentiate flow control and error control.
5. What are the steps involved in ARP?
6. State the rules to transit from IPv6 packet header to IPv4 packet header.
7. What are the steps to map host name to IP address?
8. Define URL. Mention its components.
9. What are the goals of security?
10. Define IPSec. Mention its modes

PART – B

Answer all Questions

5 x 8 = 40

11.a. Explain the TCP/IP protocol suite.

(OR)

b. Illustrate the types of transmission media.

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

(OR)

b. Write short notes on ATM architecture.

13.a. Explain the following:

i. Transition diagram of DHCP.

ii. DORA process.

(OR)

b. Discuss about OSPF links and packets

14.a. Elucidate the video compression MPEG .

(OR)

b. Write short notes control characters used in TELNET for option negotiation.

15.a. Illustrate DES algorithm.

(OR)

b. Write short notes on substitution ciphers.

PART – C

Answer any TWO Questions

2 X 20 = 40

16. Explain the following:

- i. OSI Model (14 marks)
- ii. Types of networks (6 marks)

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

b. Illustrate the three way handshaking for connection establishment and connection termination of TCP.

18. Explain in detail streaming stored audio/video.

b. Discuss in detail about RSVP.
