



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS

THIRD SEMESTER – NOVEMBER 2017

16PCA3MC02 – DATA COMMUNICATIONS AND NETWORKING

Date: 03-11-2017

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

PART – A

Answer all Questions:

10 x 2 = 20

1. What are the criteria for network?
2. What is switching? Mention its types.
3. List the protocols for random access, controlled access and channelization.
4. What are the categories of connecting devices?
5. Mention the messages of ICMP.
6. What is BGP? List its messages.
7. State the use of DNS. Mention few generic and country domains.
8. What are the objects of MIB?
9. List the various security attacks.
10. What are the services of SSL?

PART – B

Answer all Questions:

5 x 8 = 40

11.a. Illustrate the polar encoding techniques.

(OR)

b. What is Multiplexing? Explain its types.

12.a. What is BLUETOOTH? Explain its networks.

(OR)

b. Describe error detecting codes with example.

13.a. Illustrate unicasting , multicasting and multiunicasting with necessary diagram.

(OR)

b. Explain the following

i. comparison between IPv4 and IPv6 headers(2 marks)

ii. transition from IPv4 to IPv6.(6 marks)

14.a. Describe the architecture of email.

(OR)

b. Explain the following in UDP

i. queueing technique

ii. package

15a..What is IPSec ? Explain the two modes of IPSec.

(OR)

b. Explain RSA algorithm.

PART – C

Answer any TWO Questions:

2 X 20 = 40

16. a. Explain the different functionalities of the layers of the OSI model.(15 marks)

b. Write short notes on the types of networks. (5 marks)

17.a. Illustrate the various Ethernet standards.

b. Explain the link state routing algorithm with an example.

18.a. Illustrate the TCP connection establishment using time line..

b. Explain in detail the categories of traditional symmetric key ciphers.
