Printed Pages:01 **Sub Code: RCA 402**

Paper Id: 214238 **Roll No.** | | | | | | | | | | |

MCA
(SEM IV) THEORY EXAMINATION 2018-19
COMPUTER NETWORKS

Time: 3 Hours ***Total Marks: 70***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a) What are the applications of computer network?
b) What is Shannon capacity for Noisy Channel?
c) Different between Baseband Transmission and Broadband Transmission.
d) Distinguish between TCP and UDP.
e) What is Gateway?
f) Define Fragmentation.
g) Write about digital signature?

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a) What is Network? Explain different types of Networks.
b) What is cyclic code and explain Cyclic Redundancy Check (CRC) code?
c) What is IP addressing? How would you design Class A, Class B and Class C of IP addresses?
d) Explain the TCP/IP reference model with neat diagram.
e) Describe in detail about the three way handshake protocol for connection establishment in TCP.

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

(a) What is transmission medium? What are the different types of transmission medium?
(b) What is multiplexing? Define all Categories of multiplexing.

4. Attempt any *one* part of the following: 7 x 1 = 7

(a) Write short notes on i) SONET ii) ATM iii) BLUETOOTH
(b) Discuss different standards of Ethernet

5. Attempt any *one* part of the following: 7 x 1 = 7

(a) Describe internetworking connecting devices in reference to layers.
(b) Define controlled access and list three protocols in this category.

6. Attempt any *one* part of the following: 7 x 1 = 7

(a) How is congestion controlled? Explain in details the TCP congestion control.
(b) CB84000D001C001C is the content of a UDP header
i-What is the source port number?
ii-What is the destination port number ?
iii-What is the length of the data ?
iv- What is the total length of the user datagram ?

7. Attempt any *one* part of the following: 7 x 1 = 7

(a) What is security goals ? .Explain different types of Network Attacks
(b) Describe in detail about the following in Electronic mail.
i. Message format.
ii. Message transfer.
iii. Mail reader.

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