PAPER ID-410925

Subject Code: KCA303

Roll No: | | | | | | | | | | | | | |

MCA
(SEM III) THEORY EXAMINATION 2021-22
COMPUTER NETWORK

Time: 3 Hours ***Total Marks: 100***

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

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

Qno.	Question	Marks	CO
a.	Describe Data communication.	2	2
b.	Differentiate between serial communication and parallel communication.	2	4
c.	Discuss about Protocol.	2	2
d.	How would you formulate Shanon's Theorem?	2	1
e.	What is the purpose of hamming code?	2	1
f.	How would you formulate Efficiency of Standard Ethernet?	2	1
g.	Discuss about Fragmentation.	2	2
h.	List the responsibilities of Transport Layer.	2	1
i.	What is mean by Piggybacking?	2	2
j.	Illustrate about Sockets.	2	3

SECTION B

2. Attempt any *three* of the following:

Qno.	Question	Marks	CO
a.	Explain the duties of each layer in TCP/IP model.	10	2
b.	What is Transmission media ? Describe in detail about unguided transmission media.	10	3
c.	What are the Unicast , Multicast and Broadcast Address ? Define the type of the following destination addresses: **a. 4A:30:10:21:10:1A** **b. 47:20:1B:2E:08:EE** **c. FF:FF:FF:FF:FF:FF**	10	6
d.	Explain any two transport-layer protocol a. Stop-and-Wait b. Go-Back-N c. Selective-Repeat	10	4
e.	Explain the Bluetooth architecture with the help of a neat diagram.	10	5

SECTION C

3. Attempt any *one* part of the following:

Qno.	Question	Marks	CO
a.	Define multiplexing. Explain various types of multiplexing.	10	4
b.	What do you mean by Transmission Impairment ? Explain.	10	3

4. Attempt any *one* part of the following:

Qno.	Question	Marks	CO
a.	Discuss about Error Detection methods . Describe any one technique used for error detection with suitable example.	10	4
b.	Briefly explain about multiple-access protocol .	10	4

5. Attempt any *one* part of the following:

Qno.	Question	Marks	CO
a.	What is meant by congestion control? What are the techniques involved in eliminating it.	10	3
b.	What do you mean by IP address? Explain IP addressing method.	10	3

6. Attempt any *one* part of the following:

Qno.	Question	Marks	CO
a.	The content of a UDP header in hexadecimal format is CB84000D001C001C. Give the answer of following questions a. What is the source port number? b. What is the destination port number? c. What is the total length of the user datagram? d. What is the length of the data?	10	5
b.	Explain any two protocols in the TCP/IP protocol suite a.SCTP b. TCP c. UDP	10	4

7. Attempt any *one* part of the following:

Qno.	Question	Marks	CO
a.	*Explain any two* ***a) URL b) Cookies c) API d) NVT***	10	3
b.	Define network management. Explain five areas of network management.	10	4