K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22

(Autonomous College Affiliated to University of Mumbai)

End Semester Exam

Nov – Dec 2021

Program: B.Tech Computer Engineering

Examination: TY Semester: V

Course Code: 1UCEC503 and Course Name: Computer Network

Duration: 03 Hours

Max. Marks: 60

Instructions:

(1)All questions are compulsory.

(2)Draw neat diagrams wherever applicable.

(3)Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	**Solve any six questions out of eight:**	**12**		
i)	List out 7 layers of OSI model.	2	1	U
ii)	What is infrared wave?	2	2	U
iii)	List out design issues of data link layer?	2	3	U
iv)	List out types of framing.	2	3	U
v)	Explain Unicast and Broadcast.	2	4	U
vi)	What is Network Address Translation?	2	4	U

vii)	What is UDP?	2	5	U
viii)	What is DHCP?	2	6	U
Q.2	**Solve any four questions out of six.**	**16**		
i)	Discuss the different types of addresses used in the TCP/IP protocol.	4	1	U
ii)	How twisted pair cable works? Explain with neat diagram.	4	2	Ap
iii)	Explain Go back N in detail with neat diagram.	4	3	U
iv)	Differentiate between IPv4 and IPv6 addressing.	4	4	U
v)	Describe TCP Congestion Control Slow Start mechanism with diagram.	4	5	U
vi)	Differentiate between FTP and HTTP.	4	6	U
Q.3	**Solve any two questions out of three.**	**16**		
i)	Explain connecting devices used to design computer network.	8	1	U
ii)	A block of addresses is granted to a small organization. We know that one of the addresses is 205.16.37.39/28. What is the first address and last address in the block?	8	4	Ap
iii)	Describe how leaky bucket policy works.	8	5	U
Q.4	**Solve any two questions out of three.**	**16**		
i)	Explain microwave and radio wave in detail.	8	2	U

ii)	What is Hamming distance? Find the minimum Hamming distance of the coding scheme. 1)Given strings are - 000,011,101,110 2)Given strings are - 010,011,101,111	8	3	U
iii)	Write a short note on SMTP.	8	6	U