

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2024
(B. Tech.) Program: Computer Engineering Scheme: II ^B
Regular Examination: TY Semester: V
Course Code: CEC503 and Course Name: Computer Network
Date of Exam: 27/11/24
Duration: 02.30 Hours
Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
(2) Draw neat diagrams wherever applicable.
(3) Assume suitable data, if necessary.

Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Describe any 2 network topology in detail.		CO1	U
b)	Explain pure and slotted ALOHA in detail.		CO2	U
c)	What is TCP and UDP.		CO5	U
Q 2	Solve any two questions out of three: (05 marks each).	10		
a)	Explain unguided media in detail.		CO1	U
b)	Clarify at least 2 commands that can be used to find the routing information.		CO3, CO4	Ap
c)	Explain stop and wait with neat diagram.		CO2	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Differentiate between IPv4 and IPv6 addressing.		CO3, CO4	U
b)	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		CO2	Ap
c)	Describe TCP Congestion Control Slow Start mechanism with diagram.		CO5	U
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	A host in your network has been assigned an IP address of 192.168.181.182 /25. a) Identify the subnet mask in binary and decimal form b) Determine block size c) Determine the first subnet ip d) Determine the range of ip addresses e) What is the subnet to which the host belongs?		CO3, CO4	Ap
b)	Explain connecting devices used to design computer network.		CO1	U
c)	What is SMTP? Explain different commands used in SMTP.		CO6	U
