

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

Nov – Dec 2025		
Program: B. Tech Scheme: III		
Regular Examination TY Semester: V		
Course Code: EXC503 and Course Name: Computer Communication Networks		
Date of Exam: 26-11-25	Duration: 02.5 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)	Explain the role of NIC and switch in a network		1	U
b)	Describe the architecture of DSL		2	U
c)	Compare Stop-and-Wait ARQ with Go-Back-N ARQ.		3	An
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Compare IPv4 and IPv6 addressing schemes.		4	An
b)	With neat diagrams, explain TCP connection management including connection establishment, data transfer, and connection termination phases.		5	U
c)	Describe the File Transfer Protocol (FTP) architecture and explain the functions of control and data connections.		6	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Illustrate various network topologies with diagrams and pros/cons.		1	U
b)	With neat diagrams, explain how broadband access is provided using Cable Modem and HFC. Discuss advantages and limitations		2	U
c)	Differentiate between asynchronous and synchronous transmission at the data link layer.		3	An

