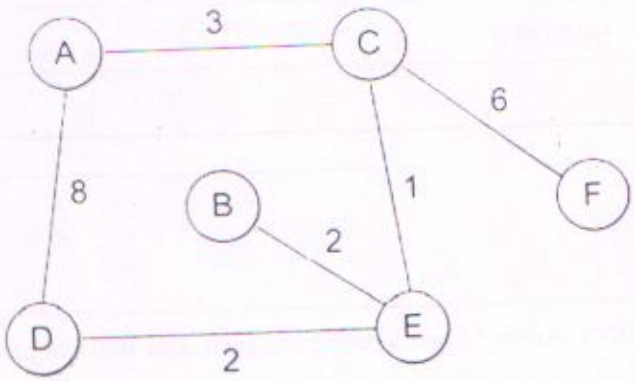
Sardar Patel Institute of Technology
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

End Semester Examination	
May 2022	
Max. Marks: 60	Duration: 2 Hrs
Class: SECOMP/SEIT	Semester: IV
Course Code:CS207/IT207	Branch: COMPS/IT
Name of the Course: Computer Communication and Networking	
Instruction:	
(1) All questions are compulsory	
(2) Draw neat diagrams	
(3) Assume suitable data if necessary	

Q. No.		Max Marks	CO-BL-PI
Q.1a	What are three classes of DNS server? Describe the purpose and working of DNS in brief.	8	1-1-1.3.1
Q.1b	Explain purpose of Line coding. Discuss Polar NRZ schemes. OR Write merits and demerits of OSI Model.	8	1-1-1.3.1
Q.2a	Explain different approaches to congestion control? How does congestion is perceived/detected?	8	2,3-2-1.3.1
Q.2b	How cumulative acknowledges are used with Go Back N? what is the alternate ACK mechanism used by selective repeat protocol and how it is used?	10	2,3-2-1.3.1

Q.3	What do you mean by Framing? Explain byte stuffing? A bit stuffing framing protocol uses an 8 bit delimiter pattern 01111110. If the output bit string after stuffing is 01111100101, find the input bit string? OR What is the principle of Random-Access Protocol at data link? Differentiate Pure ALOHA and Slotted ALOHA	8	2,3-3-2.1.1
Q.4a	Suppose computers A and B have IP addresses 10.105.1.113 and 10.105.1.91 respectively and they both use the same net mask N. Which of the values of N given below should not be used If A and B should belong to same network. i>255.255.255.0 ii>255.255.255.128 iii>255.255.255.192 iv>255.255.255.224 **Justify your answer.**	8	4-5-2.4.1
Q.4b	For the network given in the figure below, using distance vector routing, write the initial routing table at each node and show how updating of Routing table takes place at C after receiving information from E. 	10	4-5-4.1.2