BharatiyaVidyaBhavan's

Sardar Patel Institute of Technology

(An Autonomous Institute affiliated to University of Mumbai)
Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai – 400 058, India

Make-up

End Semester Examination

January 2020

Max. Marks: 60	Duration: 3Hrs
Class: TE SEMESTER :V	
Course Code: IT52 Branch: I.T.	Name of the Course: Computer Network

Instructions: (1) Draw neat diagrams wherever necessary
(2) Assume suitable data if necessary

Qu. No		Marks	CO
1) a)	Explain TCP/IP model with neat diagram.	6	CO1
b)	Explain guided transmission media with neat diagram.	6	CO2
2) a)	Generator polynomial is 101 . Data to send is 110101.Calulate CRC at sender and receiver side . Comment on the result. OR Binary data 1001101 is to be transmitted. Implement hamming code for this. At the receiver side if bit number 7 has been changed from 1 to 0. Show the received data bits.	6	CO4
b)	Explain CSMA/CD with neat diagram.	6	CO4
3) a)	Subnet the Class C IP Address 195.1.1.0 So that you have 10 subnets each with a maximum 12 hosts on each subnet. List the Address on host 1 on subnet 0,1,2. OR IP Address 195.1.1.0 So that you have at least 2 subnets, each subnet must have room for 48 hosts. What are the two possible subnet masks?	6	CO3
b)	Explain Distance vector routing.	6	CO3

4)a)	Explain 3 way handshaking for connection establishment in TCP with neat diagrams.	6	CO4
b)	A TCP connection is using a window size of 10 000 bytes, and the previous acknowledgment number was 22 001. It receives a segment with acknowledgment number 24 001. Draw a diagram to show the situation of the window before and after. OR The following is a dump of a UDP header in hexadecimal form: 05 32 00 0B 00 1B E2 17 What is the (a) Source port number (b) Destination port number (c) Total length of the UDP (d) Length of the data (e)Considering that an IP frame can have a maximum total length of 65 535 bytes, what is the maximum length of the data in a UDP frame?	6	CO4
5) a)	Explain congestion control in TCP.	6	CO4
b)	Explain TELNET.	6	CO4