Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India
(Autonomous College Affiliated to University of Mumbai)

Mid Semester Examination
Tuesday-3/3/2020

Max. Marks: 20
Class: T.E.
Course Code: ET62
Telecommunication
Name of the Course: Computer Communication Networks

Duration: 60 Min
Semester: VI
Branch: Electronics and

Instructions:
(1) All Questions are Compulsory
(2) Draw neat diagrams
(3) Assume suitable data if necessary

Question No.		Max. Marks	CO	BL	PI
Q1 a)	Identify the following to one or more layers of the OSI model i) format and code conversion services b. establishes, manages, and terminates c. ensures reliable transmission of data d. log-in and log-out procedures e. provides independence from differences in data representation **OR** Identify the networking device and Demonstrate through graphical representation the communication at the application layer for the simple private internet in following Figure 	05	CO1	2	2.1.3
Q 1b)	Apply the concept of TCP/IP protocol suit of the following case i) If a port number is 16 bits (2 bytes), what is the minimum header size at transport layer of the TCP/IP protocol suite? ii) If a physical address is 48 bits (6 bytes) what is the minimum header size at the data link layer of the TCP/IP protocol suite? iii) Why do you think that we do not need addresses at the physical layer?	05	CO1	3	1.2.1

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	iv) Why do you think both the sender and receiver addresses are needed in the Internet?				
Q2 a)	i) Host A and host B use IPSec in the transport mode. Can we say that the two hosts need to create a virtual connection-oriented service between them? Explain. ii) When we talk about authentication in SSL, do we mean *message authentication* or *entity authentication*? Explain.	02	CO2	4	2.1.3
Q2 b)	Apply the concept of client server principle and create query message and connection of the following case respectively i) A DNS client is looking for the IP addresses corresponding to xxx.yyy.com and aaa.bbb.edu. Show the query message **OR** ii) If you know a site that allows you to use SSH server, How can create a connection with the site by using the client SSH on your computer?	03	CO3	5	2.2.4
Q.3	What is firewall? Describe the concept of packet filter firewall	05	CO3	2	1.2.1