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

June-06/06/2018

Max. Marks: 100 **Duration: 3 Hr**

Class: T.E. **Semester: VI**

Course Code: ETC603 **Branch: Electronics and Telecommunication**

Name of the Course: Computer Communication Telecom Networks

Instruction:

(1) All questions Q1-Q5 are compulsory
(2) Attempt any Four questions from Q1
(3) Assume suitable data if necessary
(4) Draw neat diagrams

Q No.		Max. Marks	CO
Q.1 (a)	Compare between the circuit switching and packet switching	5	CO3
Q.1 (b)	A sender sends a series of packets to the same destination using 5 bit sequence of numbers if the sequence number start with zero, what is the sequence number of 100th packet?	5	CO4
Q.1(c)	Explain the working principle of HTTP In application layer.	5	CO5
Q.1 (d)	Compare between TDM and FDM	5	CO2
Q.1 (e)	List the specific responsibility of data link layer	5	CO2
Q.1 (f)	Following is the dump of TCP header in hexadecimal format 05320017 00000001 00000000 500207FF 00000000 a.What is source port number? b.What is destination port number? c.What is sequence number? d.What is acknowledgement number? e.What is Length of header?	5	CO4
Q.2 (a)	Draw the diagram of UDP header with pseudo header and explain the role of each field	10	CO4
	OR		
Q.2 (a)	Show the entries for the header of a TCP segment that carries a message from an FTP client to an FTP server. Fill the checksum field with 0s. Choose an appropriate ephemeral port number and the correct well-known port number. The length of data is 40 bytes.	10	CO4
Q.2 (b)	What do you mean by explicit and implicit feedback in closed loop congestion control? Explain the working principle of Leakey bucket algorithm	10	CO4
Q.3 (a)	What is the importance of Caching in DNS	4	CO5
	OR		
Q.3 (a)	Determine which of the following is an FQDN and which is a PQDN a. xxx b. xxx.yyy. c. xxx.yyy.net d. zzz.yyy.xxx.edu.	4	CO5

Q.3 (b)	Explain the process to process communication using FTP	8	CO5
Q.3 (c)	How do we share file on peer to peer network?	8	CO5
Q.4 (a)	How RIPv2 is different from RIPv1? Draw a common packet format of RIP.	8	CO3
	OR		
Q.4 (a)	What are types of OSPF packet? Draw the packet header of OSPF and explain each fields.	8	CO3
Q.4 (b)	Why dynamic routing is preferred than static routing ? Explain the techniques that make the size of routing table manageable and handle the issues of security.	8	CO3
Q.4 (c)	List the merits of Link state routing over Distance vector routing.	4	CO3
Q. 5(a)	What is WiMax? Comment on the importance of WiMax in broadband wireless technology.	8	CO2
	OR		
Q.5 (a)	What are the guided physical media ? explain the working principle of optical fiber as a medium.	8	CO2
Q.5 (b)	The data rate of 10Base is 10 Mbps. How long does it take to create the smallest frame? Show the calculation	4	CO2
Q.5 (c)	Show the Ethernet evolution with specifications.Compare and Contrast CSMA/CD with CSMA/CA	8	CO2