Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India

(Autonomous College Affiliated to University of Mumbai)

(40)

End Semester Examination

May 2018

Max. Marks: 100 Duration: 3 Hrs

Class: FYMCA Semester:II

Course Code: MCA22 Branch : MCA

Name of the Course: Computer Networks

Instruction:

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

Q No.	Question	Max. Marks	CO
Q.1 A)	Design the structure for IPv4 and IPv6 Protocol.	10	CO3
Q.1 B)	How reliable data transfer takes place in Selective Repeat protocol.	10	CO3
Q. 2 A)	Explain different framing techniques for data link layer	10	CO4
Q.2 B)	Compare Leaky Bucket and Token Bucket	10	CO4
Q. 3 A)	What is the first address and last address , no. of addresses in the block if one of the addresses is 167.199.170.82/27	10	CO3
	OR		
Q. 3 A)	What is the netid and subnetid of the address 130.45.34.56 with mask 255.255.240.0.	10	CO3
Q.3 B)	How ARP ,RARP and DHCP protocol are used for address resolution in networking	10	CO3
	OR		
Q. 3 B)	Compare Transparent and Non Transparent Fragmentation	10	CO3
Q.4 A)	Illustrate the purpose, different modes of FTP.State anonymous FTP	10	CO4
Q.4 B)	Explain the process of Three Way handshake in TCP	10	CO4
Q.5 A)	State different types of ICMP messages used in Network layer.	10	CO3
	OR		

Q.5 A)	An ISP is granted a block of addresses starting with 190.100.0.0/16 (65536) addresses the ISP needs to distribute these addresses to three groups of customers as follows: 1) The first group has 64 customers, each needs 256 addresses 2) The second group has 128 customers, each needs 128 bits. 3) The third group has 128 customers, each needs 64 addresses. Design the sub blocks and find out how many addresses are still available after these allocations	10	CO
Q.5 B)	Illustrate working of atleast three connecting devices used in Communication in detail	10	CO2
	OR		
Q.5 B)	List different types of bridges and their working	10	CO2