Seat No.----------

GANPAT UNIVERSITY
B. TECH. SEMESTER VI, ELECTRONICS & COMMUNICATION ENGINEERING
CBCS EXAMINATION, May-Jun-2013
2EC 602:- COMPUTER NETWORKS

Max. Time: 3 Hrs.] **[Max. Marks: 70**

Instructions:

1. Attempt all questions.
2. Answers to the two sections must be written in separate answer books.
3. Figures to the right indicate full marks.
4. Assume suitable data, if necessary.

SECTION-I

1	(A)	Explain the link state routing algorithm.	6
	(B)	List the timer used in TCP. Explain the any two timers in brief.	6
		OR	
1	(A)	Explain the TCP state transition diagram for connection setup, established phase and connection release.	6
	(B)	What is DNS? Explain the iterative and recursive resolution for DNS.	6
2	(A)	What is the function of ARP, DHCP and ICMP Protocol	4
	(B)	Derive the equation for normalized throughput for Pure Aloha.	4
	(C)	What is flooding? Explain the Checksum method using example.	4
		OR	
2	(A)	What supernetting? Find initial and final address for given IP address is 165.32.188.45.	4
	(B)	Explain the shortest path routing algorithm.	4
	(C)	What is Non-persistant Protocol? Explain the binary countdown method as a collision free protocol.	4
3	(A)	Draw OSI reference model and explain the function of network and transport layer in detail.	6
	(B)	What is silly window syndrome? Explain the Negle's algorithm in brief.	5

SECTION-II

4	(A)	Show the importance of sequence and acknowledgment number in data communication by giving a suitable example.	4
	(B)	Write short note on PSTN.	4
	(C)	What are the different farming methods? Explain character stuffing.	4
		OR	
4	(A)	Compare guided and unguided transmission media.	4
	(B)	Explain one bit sliding window protocol and Go-Back-N protocol. Write down drawback of both the protocols	8
5	(A)	Compare various methods of switching and discuss advantage of one over other.	6
	(B)	Explain : Bridge, Switch, Gateway, Router	6
		OR	
5	(A)	In selective repeat, the window size of sender and receiver is restricted to half the maximum sequence number. Why?	4
	(B)	State and explain various frame types in HDLC.	4
	(C)	Define : Throughput , Flow control	4
6	(A)	An organization is granted a block of address with beginning address 16.198.40.0/24.the organization need to have 3 subblocks of address to use in its three subnets as given: (A) one subblock of 122 addresses, (B) one subblock of 62 addresses, (C) one subblock of 11 addresses. Design subnetwork for given data.	6
	(B)	What is ciphertext? Explain the substitution and transposition cipher using example.	5