No. of Printed Pages : 2

CS-69

BACHELOR IN COMPUTER APPLICATIONS

00477

Term-End Examination

June, 2012

CS-69 : TCP/IP PROGRAMMING

Time : 2 hours *Maximum Marks : 60*

*Note : Question No. 1 is **compulsory**. Answer **any three** questions from the rest.*

1. (a) What are the situations in which host needs to know its protocol address (e.g.IP address) through its physical address. 4

   (b) How is the IP header checksum calculated ? Give an example. 3

   (c) What are 'class D ' addresses in IP ? Why are they used ? 4

   (d) What is the size of TCP header ? Explain, how many packets are exchanged in termination of a TCP connection ? 5

   (e) Explain the connection mechanism of File Transfer Protocol between Client and Server. 4

   (f) Why does lost acknowledgement not necessarily force the retransmission of TCP segment. 4

   (g) What is meant by unicast, multicost and broadcast communication ? Give an example for each. 6

2. Describe the purpose and importance of the following header fields of IP and TCP. 10

(a) Fragment offset
(b) Time to Live
(c) Window Size
(d) Urgent pointer
(e) Sequence Number

3. (a) What is Sliding Window Protocol ? Also, explain why Sliding Window protocol is used at data link layer and also at Transport Layer. 6

(b) Write any four differences between connection - oriented services and connection - less services. 4

4. (a) Explain the process of TCP Connection establishment using three - way hand shaking using a suitable diagram. 6

(b) What is a proxy server and how is it related to HTTP ? 4

5. Differentiate between the following pairs : 10

(a) Gateways and Bridges
(b) Transport layer of OSI and Transport layer of TCP/IP
(c) Virtual Circuit and Datagram
(d) UDP and TCP.