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**CS-69**

00369

# BACHELOR OF COMPUTER APPLICATIONS (PRE - REVISED )

## Term-End Examination

## June, 2014

## 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 is IP address ? Explain format of a typical IP address. **6**

(b) Define DNS. Explain the characteristics of DNS. **6**

(c) Draw and explain the connection establishment and termination process using 3 - way handshaking in TCP. **6**

(d) Explain , why does lost acknowledgement not necessarily force the retransmission of TCP segment. **4**

(e) Explain congestion control and quality of services in context of TCP. **4**

(f) What is IP routing ? Explain, how Indirect routing is different from Direct routing. **4**

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

(a) Time To Live

(b) Flags

(c) Header checksum

(d) Type of services

(e) Window size

3. (a) Explain the similarities between the following : 4

   (i) HTTP and SMTP

   (ii) HTTP and FTP

   (b) Explain the importance of TCP in the TCP/IP stack. Also, explain TCP segment encapsulation with the help of a diagram. 6

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

   (b) Explain the four classes of IP address and give one example address for each class. 6

5. Explain the following terms : 10

   (a) TCP/IP

   (b) Client - Server

   (c) Full - Duplex

   (d) Stream data

   (e) TELNET