

**BACHELOR OF COMPUTER
APPLICATIONS**

Term-End Examination

June, 2013

BCS-061 : TCP / IP PROGRAMMING

Time : 2 hours

Maximum Marks : 60

Note : *Question no. 1 is compulsory. Attempt any three from the rest.*

1. (a) Consider the given network address 17.0.0.0. Find its class and the range of class. 2
- (b) Define Masking. Write the default mask for Class B. 3
- (c) Why does FTP use two TCP connections ? 2
- (d) Write a program in C language for UDP echo client and server. 8
- (e) Enlist different components of URL. Also, explain the importance of each. 3
- (f) Explain the purpose of following fields of IP Header. 6
- (i) TTL
- (ii) Fragment offset
- (iii) TOS
- (g) How is "error control" managed by TCP ? Explain. 6

2. Differentiate between the following : 10
- (a) Stateful and Stateless Program
 - (b) Send () and Send to () System Call
 - (c) htonl () and htons ()
 - (d) close () and shut down ()
3. (a) Explain TCP connection establishment process with the help of a diagram. 5
- (b) Explain the header format for Query/Response messages used in DNS. 5
4. (a) Differentiate between SMTP, POP and IMAP. 6
- (b) Explain Distance Vector Routing algorithm using an example. 4
5. (a) Explain the process of stream delivery service provided by TCP. 5
- (b) Define the following using an example of each : 5
- (i) Concurrent Server
 - (ii) Raw Sockets
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