

57672

No. of Printed Pages : 3

CS-69

**BACHELOR OF COMPUTER
APPLICATIONS**

**BCA (PRE-REVISED)
Term-End Examination
June, 2019**

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) Why do we need an Internet ? Draw its architecture and explain how does it work ? 4
- (b) What are the two flags in IP header which deal with datagram fragmentation ? 4
- (c) What are the components of URL ? Explain through an example. 3
- (d) What is the use of ICMP ? What are the different query messages in ICMP for network management and monitoring ? 5

(A-59) P. T. O.

- (e) Draw the structure of a socket. What is the difference between a stream socket and a sequenced pocket socket ? Explain. 4
- (f) List and explain any *two* functions which convert data from the host format to the network format. 4
- (g) Explain the concept of recursive solution in DNS with the help of a diagram. 3
- (h) Given the network address 125.15.0.0, find its IP class and the range of its address. 3
2. (a) What is 3-way handshaking technique to establish a TCP connection ? How does it work ? Explain through a diagram. 5
- (b) Explain with the help of a diagram how does communication take place between computers located in different LANs which are connected through a router. 3
- (c) What will be the value of HLEN (IP Header field) when the header size is 20 bytes ? 2
3. (a) How is HTTP used in web browsing ? Discuss any *four* commands with their actions used by HTTP in web browsing. 6
- (b) How do you count a number of subnets and a number of addresses per subnet ? Explain with an example. 4

4. (a) What are the steps followed by a client and a server process to establish the connection? 5
- (b) The checksum in IPv4 packet covers only the header, not the data. Explain the reason. 3
- (c) What is the purpose of bind () system call? 2
5. (a) How does distance vector routing protocol work? 4
- (b) Define file descriptor and socket descriptor. Draw the structure of a socket descriptor. 4
- (c) Given the IP address 120.65.17.85, find the network address. 2