

2016

M.Sc. 1st Semester Examination

COMPUTER SCIENCE

PAPER—COS-105

(Practical)

Full Marks : 50

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

(Computer Network Lab.)

Answer any *one* question (Based on a lucky draw). 1×35

1. Write a client side program in C to create a TCP socket to establish a connection to the server and communicate with that server.

(Turn Over)

2. Write a server side program in C to create a TCP socket, assign a port number to the socket to allow connection by clients to that port and communicate with the clients.

3. Using a connection less protocol, write a program in C to set up a client which sends an echo string to a server and receives the echo.

4. Write a program in C to create a server which loops forever, receiving a message and then sending the same message back to wherever it came from. Use a unreliable protocol to create your server.

5. Write a program in C to construct a sender which broadcasts a given string in every five seconds to a specified broadcast address.

6. Write a program in C to demonstrate a broadcast receiver.

7. Write a program in C to implement a sender which multicasts a UDP datagram to a specific multicast address in every ten seconds.

8. Write a program in C to create a multicast receiver that joins a specified group and receives and prints a single multicast message from that group.
9. Design TCP iterative client and server application to reverse the given input sentence.
10. Write a server side program to demonstrate TCP. The server accept a string from a client through a specific port and send an acknowledge to the client.
11. Design TCP client and server application to transfer file.
12. Design a TCP concurrent server to echo given set of sentences using poll function.
13. Design UDP client and server application to reverse the given input sentence.
14. Design UDP client and server application to transfer a file.
15. Write a TCP client program which sends a message to a TCP server and accept and show the message sent by the server.

16. Write a UDP server side program that provides current date and time when communicated through port no 1234.

17. Write a client side program to demonstrate UDP such that the client can accept a string, when it connect with a UDP server through a certain port.

Distribution of Marks :

Program — 15

Execution — 15

Discussion & Accuracy — 05

Viva-voce — 10

Laboratory Note Book — 05
