Assignment List for B.Sc. (Computer Science) 5th Semester NEP Batch

Socket Programming

Q1.   Develop a client-server application using UDP where the client will send principal, rate of interest and number of years to the server and the server will calculate the interest and send the result to the client. The client will display the interest amount.

Q2.   Develop a client-Server application using UDP where the client will send a decimal integer to the server and the server will calculate the sum of its even positioned digits and send back the result to the client. The client will display the result. [**Example:** Input: 1248, Output: 2+8=10]

Q3.   Develop a client-server application using UDP where the client will send a filename to the server and the server will display the content of the file, otherwise display a message "file does not exist on the server". **Note:** The file is situated at the server side.

Q4.   Develop a client-server application using TCP where the client will send two operands and an operator to the server in operand1 operator operand2 format and the server will calculate the result and display it. Allowed operators are +, -, *, /, %.

Q5.   Develop a client-Server application using TCP where the client will send two words to the server and the server will check whether same characters are present in both the words and they occur same number of times (irrespective of position of the characters) and send back the result to the client. The client will display the result.
[**Example:** Input: listen silent, Output: Check condition satisfied.]

Q6.   Develop a client-Server application using TCP where the client will send two file names to the server and the server will copy the content of the first file into the second file. After copying is done, the server will send an appropriate message to the client. The second file should be initially empty. Assume that both files are present at the server.

Q7.   Develop a client-server application using TCP where the client sends the name of a text file and the size of the block of data to the server, the server checks the availability of the text file and if the text file is available, sends the text file content to the client as per the input block size after reading the file contents. After sending the whole file, display an appropriate message.