C Programming Assignments:

Q.1) Write a program in c for a matchstick game being played between the computer and a user. Your program should ensure that the computer always wins. Rules for the game are as follows:  
-There are 21 matchsticks.  
-The computer asks the player to pick 1, 2, 3 or 4 matchsticks.  
-After the person picks, the computer does its picking.  
-Whoever is forced to pick up the last matchstick loses the game.

Q.2) Write a C program to get the absolute difference between n and 51. If n is greater than 51 return triple the absolute difference.

Q.3)Write a program to read n number of values in an array and display it in reverse order.

Q.4)Write a program to count a total number of duplicate elements in an array.

Q.5)Write a programto delete an element at desired position from an array.

Q.6)Write a program to find the second largest element in an array.

Q.7)Write a program in C to convert decimal number to binary number using the function.

### Q.8) Write a c program to read time in HH24:MM:SS format using single scanf() statement, make sure input value should be correct, if input values are wrong read them recursively; print the time in HH24:MM:SS if values are correct.

Q.9)  Write a C program to check which number nearest to the value 100 among two given integers. Return 0 if the two numbers are equal.

# Q.10) Write program to trim leading white spaces from a string

CPP Assignments:

Q.1)Write a program in C++ to find Size of fundamental data types

Q.2)Write a program in C++ to check the upper and lower limits of integer.

Q.3) Write a program to read a file and count the number of chars, words, and lines, and print these quantities.

Q.4) Per 6 coffee cups I buy, I get a 7th cup free. In total, I get 7 cups. Create a function that takesn  cups bought and return as an integer the total number of cups I would get.

Q.5)Define a class TEST in C++ with following description:  
Private Members  
TestCode of type integer  
Description of type string  
NoCandidate of type integer  
CenterReqd (number of centers required) of type integer  
A member function CALCNTR() to calculate and return the number of centers as  
(NoCandidates/100+1)  
Public Members  
-  A function SCHEDULE() to allow user to enter values for TestCode, Description, NoCandidate& call function CALCNTR() to calculate the number of Centres  
- A function DISPTEST() to allow user to view the content of all the data members*.*

Q.6)Assuming that a text file named FIRST.TXT contains some text written into it, write a function named copyupper(), that reads the file FIRST.TXT and creates a new file named SECOND.TXT contains all words from the file FIRST.TXT in uppercase.