Exercise

(Q1) Write a program in C to print first 50 natural numbers using recursion. Expected Output:
The natural numbers are:

1 2 3 4 5 6 ………………………………………………..50

(Q2) Write a program in C to find the sum of digits of a number using recursion.

Test Data:

Input any number to find sum of digits: 25

Expected Output :

The Sum of digits of 25 = 7

(Q3) Write a program in C to find GCD of two numbers using recursion.

Test Data :

Input 1st number: 10

Input 2nd number: 50

Expected Output:

The GCD of 10 and 50 is: 10

(Q4) Write a program in C to convert a decimal number to binary using recursion

Test Data :

Input any decimal number : 66

Expected Output :

The Binary value of decimal no. 66 is: 1000010

(Q5) Write a program in C to get the largest element of an array using recursion.

Test Data : input the array element : 54,78,2,8,12,4,6,,43

Expected Output :

largest element : 78

(Q6) Write a program in C to find the first capital letter in a string using recursion.

Test Data :

Input a string to including one or more capital letters : testString

Expected Output :

The first capital letter appears in the string testString is S.

(Q7) Write a program in C to Check whether a given String is Palindrome or not.

Test Data : Input a word to check for palindrome : mom Expected Output : The entered word is a palindrome.

(Q8) Write a program in C to print even or odd numbers in given range using recursion. Test Data : Input the range to print starting from 1 : 10 Expected Output : All even numbers from 1 to 10 are : 2 4 6 8 10 All odd numbers from 1 to 10 are : 1 3 5 7 9

(Q9) Write a program in C to find the Factorial of a number using recursion. Test Data : Input a number : 5 Expected Output : The Factorial of 5 is : 120

(Q10) Write a program in C to Print Fibonacci Series using recursion. Test Data : Input number of terms for the Series (< 20) : 10 Expected Output : Input number of terms for the Series (< 20) : 10 The Series are : 1 1 2 3 5 8 13 21 34 55