Madan Bhandari Memorial College

BSC.CSIT Program

1st Semester

Assignment – 3 Date of Submission:

Functions:

1. Write a Program in C to input a number and find whether the number is exactly divisible by 5 and 7 or not using functions:
    a. No return no argument
    b. No return with argument
    c. Return with no argument
    d. Return with argument
2. WAP in C to input a number and check whether the number is palindrome or not using function.
3. WAP in C to find whether the given number is prime or not using function.
4. WAP in C to print all prime number less than 500 using function.
5. WAP in C to print **TWIN PRIME** less than 500 using function.[if two consecutive odd numbers are both prime(e.g. 17,19) then they are known as twin Prime].
6. WAP in C to convert decimal number to binary using functions.
7. WAP in C to find the all divisor of a given number using functions.
8. Write a function Power that computes X raised to the power Y for integer X and Y and return double type value.

Recursion:

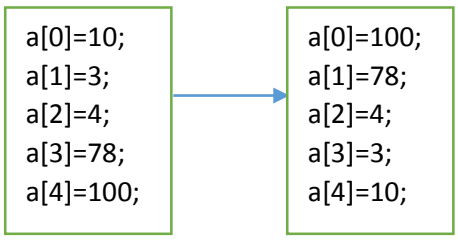
1. Write a program in C to find the factorial of a given number using Recursive Function.
2. WAP in C to generate the Fibonacci series using recursive Function.
3. Write a recursive function to generate the particular term in Fibonacci Series.(eg. 8the term: 13).
4. WAP in C to display the reverse number using Recursion.
5. WAP to find the sum of digits entered by the user.
6. WAP to find the sum of Natural number up to 10 using recursion.
7. WAP in C to ask a number and Power to be calculated for that number.

Arrays and Strings:

1. WAP in C to initialize any 10 value in an array and display them.
2. WAP to input any 10 number by user and display them.
3. WAP in C to input any 10 number in an array and print them along with the Total and average of that numbers.
4. WAP in C to input any 10 numbers in an array and count no. of ODD and EVEN and find out their sum and display them.
5. WAP in C to input any 10 numbers in an array and search an element.
6. WAP to input any 10 numbers in an array and find out the Maximum and Minimum Value.

7. WAP to input any 5 element in an array and print them in reverse order too.

e.g.



8. WAP in C to convert decimal number to Binary, Octal, and Hexadecimal using array.

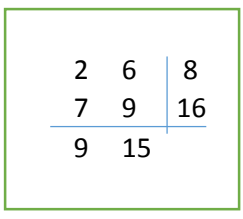
Array and Functions:

1. Write a Program in C to input any 10 element in an array and display them using function. (Passing individual array element).
2. Write a program in c to input any 10 number in an array and sort them in ascending order using function. (Pass Whole array).
3. Write a program in c to input any 10 number in an array and sort them in descending order using function. (Pass Whole array).

2-D Array:

1. WAP in C to initialize a 2X2 Matrix and display it.
2. WAP to input a 2X3 Matrix and display the content of Matrix.
3. WAP to input two matrix and add them.
4. WAP in C to multiply two different matrices.
5. WAP to find the Transpose of a given Matrix.
6. WAP to read the array 2X2, then double the content of each element of an array and display the result. Your program should have three function to input, process and display array.
7. WAP in c to copy the element of one Matrix to another.
8. Write a program in c to read a matrix of size M*N, pass this Matrix to a function which increases the each element of matrix by 5.
9. WAP to find the Row Sum and Column Sum of a Matrix.

E.g.



Character array and String:

1. WAP to input and output of String using Scanf() and Printf().
2. WAP to input and output of String using gets() and Puts().
3. WAP to input and output of Character array using getchar() and Putchar().
4. WAP to input and string and find out the length of string using strlen() and without using strlen().
5. WAP to copy a string from one to another using strcpy() and without using strcpy().
6. WAP to concatenate two string using strcat() and without using strcat().

7. WAP to compare two string using strcmp() and without using Strcmp().
8. WAP to reverse a string using strrev() and without using strrev().
9. WAP to find whether the given string is palindrome or not.
10. WAP to input the name of any five student and sort them alphabetically in ascending order.
11. WAP to input a string and convert it into upper case and vice versa.
12. WAP to take the string using gets(), and pass to the function to find and return number of words, whitespace in that string.
13. Write a program to read a string and search a specified word in given string.

Pointers:

1. WAP to display the value and memory location reserved by a variable.
   e.g. if a=4;, print a and memory location reserved by a.
2. WAP to illustrate address reserved by different data types.
   e.g. int, float, char and double.
3. WAP to input 5 different element in an array and display them along with addresses using pointer.
4. WAP to input the total marks of 10 different students and find the total and average using pointer.
5. WAP to determine the length of a character string using pointer.
6. WAP using to exchange the value stored in two locations in the memory using pointer.
7. WAP to input any 10 numbers and sort them in ascending order using pointer.

Pointer and 2-D Array:

1. WAP to illustrate 2-D array using pointer.
2. WAP to add two matrices using pointer.
3. WAP to multiply two matrices using pointer.
4. WAP to input a character and convert it into lower case to upper case and vice versa using pointer.

Structure and Unions:

1. Create a structure named student that has name, rollno, and total marks as its member using structure initialization.
2. Create a structure named student that has name, rollno and total marks as its member. WAP using structure to read and display the data entered by the user.
3. WAP using structure named student that has name, rollno, total marks and remarks as member to read the record of 10 different student and display them.
4. For Q.No. 3, count no of student having marks greater than 300.
5. For Q. NO. 3 arrange the record on the basis of marks in ascending order.
6. For Q. NO.3 arrange the record on the basis of names in alphabetical order.