

# Assignments

## switch

1. C program to find maximum between two numbers using switch case
2. Write a C program to check whether an alphabet is vowel or consonant using switch case.
3. Write a C program to check whether a number is positive, negative or zero using switch case.
4. Write a C program to print day of week name using switch case.

## Decision control

1. - Half Faulty Calculator

45 \* 3 = 555, 56+9 = 77, 56/6 = 4

Design a calculator which will correctly solve all the problems except

# the following ones:

# 45 \* 3 = 555, 56+9 = 77, 56/6 = 4

# Your program should take operator and the two numbers as input from the user

# and then return the result

2. Write a C program to find the eligibility of admission for a professional course based on the following criteria:

Marks in Maths  $\geq 65$

Marks in Phy  $\geq 55$

Marks in Chem  $\geq 50$

Total in all three subject  $\geq 180$

3. To print greatest of 3 nos = a=30, b=40, c=50

4. If the three sides of a triangle are entered through the keyboard, write a program to check whether the triangle is valid or not. The triangle is valid if the sum of two sides is greater than the largest of the three sides.

5. Write a C program to input any alphabet and check whether it is vowel or consonant.

5. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

Percentage  $\geq 90\%$  : Grade A

Percentage  $\geq 80\%$  : Grade B

Percentage  $\geq 70\%$  : Grade C

Percentage  $\geq 60\%$  : Grade D

Percentage  $\geq 40\%$  : Grade E

Percentage  $< 40\%$  : Grade F

7. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:

For first 50 units Rs. 0.50/unit

For next 100 units Rs. 0.75/unit

For next 100 units Rs. 1.20/unit

For unit above 250 Rs. 1.50/unit

An additional surcharge of 20% is added to the bill

8. Write a C program to input basic salary of an employee and calculate its Gross salary according to following:

Basic Salary  $\leq 10000$  : HRA = 20%, DA = 80%

Basic Salary  $\leq 20000$  : HRA = 25%, DA = 90%

Basic Salary  $> 20000$  : HRA = 30%, DA = 95%

9. Write a C program to check whether a number is divisible by 5 and 11 or not.

## Loop

1. To print only even nos upto user defined range
2. To print numbers which is divisible by 3 and 5 upto user defined range
3. To print multiplication table of given number - 12 -  $12*1=12$
4. To Print square and cube from 20 to 50 nos -
5. To print addition of numbers which is divisible by 5 upto given range  
n1-10 n2-50

1] To check given number is amstrong or not –

$$153 - 1*1*1+5*5*5+3*3*3$$

$$1 + 125 + 27 = 153$$

2. To print addition of only even digits of given number

$$23456 - 2+4+6 = 12$$

3]To print digits addition of given number

4]Print all prime numbers between 1 to 100

5]Print multiplication tables from 10 to 20

6]To print fibbonacci series upto range. ex 0 1 1 2 3 5 8.....

7] Sum and average of 10 Number

## Array

1. Write a program in C to copy the elements of one array into another array.
2. Write a program in C to count a total number of duplicate elements in an array.
3. Write a program in C to count the frequency of each element of an array.
4. Write a program in C to separate odd and even integers in separate arrays
5. Write a program in C to insert New value in the array

### 1 D Array

Accept Elements from user.

Display all elements from array.

Display all elements at even and odd index.

Sum of all elements

Sum of elements at even and odd index.

Sorting

Searching

### 2 D Array

Accept Elements from user in matrix.

Display all elements in matrix form.

Display sum of diagonal elements and non diagonal elements.

Find out Transpose of Matrix.

Sum of two matrices.

Multiplication of two matrices.

## Matrics

Accept Elements from user in matrix.

Display all elements in matrix form.

Display sum of diagonal elements and non diagonal elements.

Find out Transpose of Matrix.

Sum of two matrices.

Multiplication of two matrices.

## **string**

Accept string from user and Display

Length of the String

Reversing the String

Convert string to Uppercase and Lowercase

Compare two strings

Concatenate two Strings

Coping String into another String.

## **Pointer**

1. What are the Types of pointer and Explain each type with program.
2. Write a swapping program by using pointer concept.
3. Write a function which returns a pointer variable.
4. write a program for arithmetic operation using pointer.
5. Write a program to check whether number is palindrome or not by using pointer.