Algorithm for Question 1

Step-1: Declear the data types and variables. and start.

Step-2: Depending on question take Inputs from user and Print the required fields.

Step-3: Create the menu for menu driven program.

Step-4: Display the Menu.

Step-5: Using the Switch case create the menu Program workable.

Step 6: Display the Output.

Step 7: Display the whole program in a loop

Step 8: Create the variable to exit from the loop.

Step 9: Stop.

Date ....

Expt. No. ....1.....   Alok Kumar Rastogi
                               18M19CS192   Page No. ...1....

Q-1 Write a menu driven C program to design a Simple Calculator which solves 10 Operation – 4 Arithmetic, 4 Relational and any two of your choice. The program should loop till the user wishes to stop.

```c
# include <stdio.h>
int main()
{
    int num1, num2, opt, c;

    while (1)
    {
        printf ("Enter the first integer:");
        scanf ("%d", &num1);
        printf ("Enter the Second integer:");
        scanf ("%d", &num2);
        printf ("\nInput your Option:\n");
        printf ("\t A. OPERATIONAL OPERATORS: \n1- Addition.
        \n2- Substraction. \n3- Multiplication. \n4- Division. \n5- Modulus\t);
        printf ("B. RELATIONAL OPERATORS: \n6- Equal to. \n7- Greater Than.
        \n8 -Less than \n9 - Not equal to \n10- Greater than or equal to
                \n11- Exit.\n");


        scanf ("%d", &opt);
```

```
Switch (opt)
{
    Case 1:
        Printf (" The Addition of %d and d.d is: d.d\n", num1, num2,
                            num1 + num2);

        break;
    Case 2:
        Printf ("The Substraction of %d and %d is : %d \n", num1, num2, num1-num2);
        break;
    Case 3:
        Printf (" The Multiplication of %d and %d is : %d \n", num1, num2, num1*num2);
        break;
    Case 4:
        if (num2 == 0)
        {
            Printf ("The Second integer is zero. Divide by zero \n");
        }
        else {
            Printf ("The Division of %d and %d is : %d\n", num1, num2, num1/num2);
        }
        breaks
    Case 5:
        if (num2 == 0) {
        Printf ("The Second integer is zero. Divide by zero \n");
        } else {
            Printf ("The modlus of %d and %d is %d \n", num1, num2, num1%num2);
        }
        break;
```

```
case 6 :
  if ( num1 == num2)
    {  printf (" %d = %d \n", num1, num2);
    }
  else {
        printf (" %d 1 = %d \n", num2, num1);
    }
  break;
case 7 :
  if (num1 > num2)
    {  -
        printf (" %d > %d \n", num1, num2);
    }
  else {
      printf (" %d > %d \n", num2, num1);
    }
  break;
Case 8:
    {
  if (num1 < num2)
      {
        printf (" %d < %d \n", num1, num2);
      }
    else
      {
        printf (" %d < %d \n", num2, num1);
      }
  break;
```

```
case 9 :
if (num1 != num2)
 {
   Printf ("%d 1 = %d \n", num1, num2);
 }
 else {
   Printf ("%d = %d", num2, num1);
 }
 break;
Case 10;
if (num1 >= num2)
 {
   Printf ("%d >= %d \n", num1, num2);
 }
 else
 {
   Printf ("%d isnot >= %d \n", num2, num1);
 }
 break;
 default:
   Printf (" Input correct option \n");
   break;
 }
Printf (" Press 1 to perform calculation again \n Press any key to exit \n");
Scanf ("%d", &c);
if (c! = 1) {
        break;
 }
}
}
```