Program 1 Question:

Write a menu driven C Program to design a simple calculator which solves 10 operations - 4 arithmetic, 4 relational and any two of your choices. The program should loop till the user wishes to stop.

1BM19CS216
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Program 1.

```
#include <stdio.h>
 void main() {
  int num1, num2, opt;
  char answer;
  do{
  printf("1-Addition.\n 2.-Substraction.\n 3.-
          Multiplication.\n 4-Division.\n 5-Greater.
          \n 6-Smaller.\n 7-Equality.\n 8.-Greater
          than or Equal.\n 9-Square.\n 10-
          Cube\n");
  printf("\n Input the number of your option:\n");
   scanf("%d", &opt);
   printf("Enter the first number:");
   scanf("%d", &num1);
   printf("Enter the second number:");
   scanf("%d", &num 2);

 switch (opt)
 {
 case 1:
 printf("The Addition of %d and %d is: %d\n",
          num1, num 2, num1+num2);

 break;

 case 2:
 printf("The Substration of %d and %d is: %d\n",
          num1, num2, num 1-num 2);

 break;

 case 3:
  printf("The multiplication of %d and %d is
          %d\n", num1, num 2, 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);

}
break;

case 5:
if (num1 > num2)
{
printf("The Greater number is %d", num1);
}
else {
printf("The Greater number is %d", num2);
}
break;

case 6:
if (num1 < num2)
{
printf("The smaller number is %d", num1);
}
else {
printf("The Smaller number is %d", num2);
}
break;

case 7:
if (num1 == num2)
{
printf("The number are Equal");
}
```

```
else
{
printf ("The numbers are not Equal ");
}
break;

case 8 :
if (num11 = num2)
{
printf ("The Number %d is greater than or
        equal to %d ", num1, num2);
}
else
{
printf ("The Number %d is greater than or
        equal to %d", num2, num1);
}
break;

case 9 :
printf ("The Square of %d is %d \n", num1,
        num1 * num1 );
printf ("The Square of %d is %d \n", num2,
        num2 * num2);
break;

case 10:
printf ("The Cube of %d is %d \n", num1 * num1
        * num1 * num1);
printf ("The Cube of %d is %d \n", num2,
        num2 * num2 * num2);
break;

default :
  printf ("Option not available \n");
} break;
```

```
printf("Press Y to continue.\n");
scanf("%c", &answer);
}
while (answer == 'y' || answer == 'Y');
}
```

Program 2 Question:

Write a C program to accept three numbers from the user. Find the greater two among the three and pass them as parameters to the user defined functions given below.

a. sumaver(..) which finds and prints sum and average.

b. printeven(...) which prints all the even numbers between the given two numbers.

Q2. Program 2

```
#include <stdio.h>
float sumaver (int a, int b)
{
printf ("The sum of two largest number is
        %d \n", a+b);
 return (float) (a+b)/2;
}
int printfeven (int k, int n)
{
printf ("Even numbers in between %d and
        %d :\n", k, n);
 for (int i =k; i<=n; i++)
 {
    if (i % 2 == = 0)
   {
   printf ("%d \n", i);
   }
 }
}
int main ()
{
int n = 0, i = 0, largest1 = 0, largest2 = 0,
 temp = 0;
int array[n];
float avg;
printf("Enter the three numbers: \n");
for (i = 0; i < 3; i++)
{
   scanf ("%d", &array[i]);
}
```

```
printf("\n");
largest1 = array[0];
largest2 = array[1];
if (largest1 < largest2)
{
    temp = largest1;
    largest1 = largest2;
    largest2 = temp;
}
for (int i=2; i<3; i++)
{
    if (array[i] > largest1)
    {
        largest2 = largest1;
        largest1 = array[i];
    }
    else if (array[i] > largest2 && array[i]
        != largest1)
    {
        largest2 = array[i];
    }
}
printf("The Largest number = %d\n", largest1);
printf("The second largest number = %d\n",
        largest2);
avg = sumaver(largest1, largest2);
printf("The average of two largest number
        is %f\n", avg);
printeven(largest2, largest1);
return 0;
}
```