Lab Final

1.Write a program to print yours name,date of birth,id and blood group.

```
#include<stdio.h>
int main()
{

   printf("Personal Information : \n\n");

   printf("Name : Shakil Ahamed Riaz\n");
   printf("Date of Birth : 7th October 2002\n");
   printf("ID : 221-35-995\n");
   printf("Blood Group : A+\n");

   return 0;
}
```

2.Write a program that take two integer as input and print the result of addition,substraction,multipication,division.

```
#include<stdio.h>
int main(){

int a,b,add,sub,mul,div;
printf("Enter the value of a : ");
```

```
scanf("%d",&a);
printf("Enter the value of b : ");
scanf("%d",&b);



add=a+b;
sub=a-b;
mul=a*b;
div=a/b;

printf("Addition of a and b : %d\n",add);
printf("Substraction of a and b :%d \n",sub);
printf("Multipication of a and b :%d\n ",mul);
printf("Division  of a and b : %d\n",div);







return 0;
}
```

3.Write a program that takes two float number as input and show the result of addition and substraction.

```
#include<stdio.h>
int main(){

double a,b,add,sub;
printf("Enter the value of a : ");
```

```
scanf("%lf",&a);
printf("Enter the value of b : ");
scanf("%lf",&b);

add=a+b;
sub=a-b;

printf("Addition  is    : %.2lf\n",add);
printf("Substraction is : %.2lf\n",sub);



return 0;
}
```

4.Enter a six digit number and show the result of sum and show the problems in reverse order.

```
#include <stdio.h>
int main()
{
   int n, t, sum = 0, remainder,reverse;

   printf("Enter an integer\n");
   scanf("%d", &n);

   t = n;

   while (t != 0)
```

```
    {
        remainder = t % 10;
        sum       = sum + remainder;
        t         = t / 10;
    }

    printf("Sum of digits of %d = %d\n", n, sum);

    while (n != 0)
    {
        remainder = n % 10;
        reverse = reverse * 10 + remainder;
        n /= 10;
    }

    printf("Reversed number = %d", reverse);

    return 0;
}
```

5.Write a program to find out your grade in final exam. Taking the marks input from user.
Follow DIU grading method.

```
#include <stdio.h>

int main()
{
    double attendence, assignments, quiz, presentation, mid, final, result;
```

```
    printf("Enter marks of attendence(0-7): ");
    scanf("%lf", &attendence);
    printf("Enter marks of assignments(0-5): ");
    scanf("%lf", &assignments);
    printf("Enter everage marks of quiz(0-15): ");
    scanf("%lf", &quiz);
    printf("Enter marks of presentation(0-8): ");
    scanf("%lf", &presentation);
    printf("Enter marks of Mid-term exam(0-25): ");
    scanf("%lf", &mid);
    printf("Enter marks of Final exam(0-40): ");
    scanf("%lf", &final);

    if((attendence>=0 && attendence<=7) && (assignments>=0 && assignments<=5) && (quiz>=0 && quiz<=15) &&
(presentation>=0 && presentation<=7) && (mid>=0 && mid<=25) && (final>=0 && final<=40))
    {



    result = attendence + assignments + quiz + presentation + mid + final;


    // printf("%.2lf", result);


    if (result >= 80 && result <= 100)
    {
        printf("point: 4.00\tGrade: A+\n");
    }
    else if (result >= 75 && result <= 79)
    {
        printf("point: 3.75\tGrade: A\n");
    }
    else if (result >= 70 && result <= 74)
```

```
{
   printf("point: 3.50\tGrade: A-\n");
}
else if (result >= 65 && result <= 69)
{
   printf("point: 3.25\tGrade: B+\n");
}
else if (result >= 60 && result <= 64)
{
   printf("point: 3.00\tGrade: B\n");
}
else if (result >= 55 && result <= 59)
{
   printf("point: 2.75\tGrade: B-\n");
}
else if (result >= 50 && result <= 54)
{
   printf("point: 2.50\tGrade: C+\n");
}
else if (result >= 45 && result <= 49)
{
   printf("point: 2.25\tGrade: C\n");
}
else
{
   printf("fail\n");
} }
else{
   printf("You enter a wrong marks somewhere : \n");
}
```

```
   return 0;
}
//output:
//attendence : 7
//assignment : 4
//quiz       : 12
//presentation: 8
//mid         :23
//final       :35
 //The point 4.00  Grade: A+
```

6.Write a programme to count if a year is leap or not.

```
#include <stdio.h>

int main(){

  int y;

  printf("Enter the year to check: ");

  scanf("%d",&y);

  if (((y % 4 == 0) && (y % 100!= 0)) || (y%400 == 0))

     printf("It is a leap year");

  else

     printf("It is not a leap year");
```

```
  return 0;

}
```

7.Write a programme to print all the prime number from 1-300.

```
#include<stdio.h >
#include<math.h>

int main()
{
   int num, count, i, prime;

   printf("Prime Numbers from 1 To 300 are\n");

   for(num = 1; num <= 300; num++)
   {
      if(num == 1)
      {
         printf("Number 1 is neither prime nor composite\n");
         continue;
      }

      count = sqrt(num);
      prime = 1;
      for(i = 2; i <= count; i++)
      {
         if(num % i == 0)
         {
            prime = 0;
```

```
            break;
        }
    }

    if(prime)
    {
        printf("%d\n", num);
    }
  }

  return 0;
}
```

8.Write a menu driven program which has the following options.

```
#include<stdio.h>
int main(){

int choice, i, factorial=1, number, num, take,j=1,n,f,f1,f2;;

printf("\n_____\n");

printf("Choice are given below. You have to chose by press a digit that is mentioned here.\n");
printf("1: for Factorial\n");
printf("2: for prime or Not\n");
printf("3: for Even/Odd\n");
printf("4: for Fibonacci\n");
printf("5: for Exit\n");
```

```
printf("\n_____\n");

printf("Enter your Choice : ");
scanf("%d",&choice);


switch (choice)
{
case 1:

   printf("Enter a number : ");
   scanf("%d",&number);
   for(i=1; i<=number; i++){
      factorial=factorial*i;
   }
   printf("Factorial of %d is : %d ",number,factorial);

break;


case 2:

    printf("Enter any Positive Number: ");
    scanf("%d",&num);
   for(i=2; i<=num; i++){
      if(num%i==0){
      take++;
      break;

      }
   }
```

```
    if(take==0){
        printf("%d is Prime number.\n",num);
    }
    else{
        printf("%d is Not a prime number.\n",num);
    }

break;



case 3:

    printf("Enter a Number: ");
    scanf("%d",&number);

    if(number%2==0){
        printf("%d is Even number \n",number);
    }
    else{
        printf("%d is Odd number \n",number);
    }



break;

case 4:
printf("Enter Number of Fibonacci Values : \n");
    scanf("%d",&n);
    printf("Fibonacci terms\n");
    f=0;
    f1=1;
```

```
   f2=1;
   do
   {
      j++;
      printf("%d\n",f);
      f1=f2;
      f2=f;
      f=f1+f2;
   }
   while(j<=n);

default:
    printf("Exit -NO case here!");
   break;
}

   return 0;
}

//Output--

//1st_case
//enter your choice: 1
//enter a number: 5
//Factorial of 5 is: 120

//2nd_case
//enter your choice: 2
//Enter any positive number: 44
//44 is not a prime number.
```

//3rd_case

//enter your choice: 3

//Enter a Number: 5

//5 is Odd number

//4th case

//enter Fibonacci values: 5

//Fibonacci terms: 0 1 1 2 3

//exit/dafult case

//enter your choice except 1,2,3

//Exit-No case here !