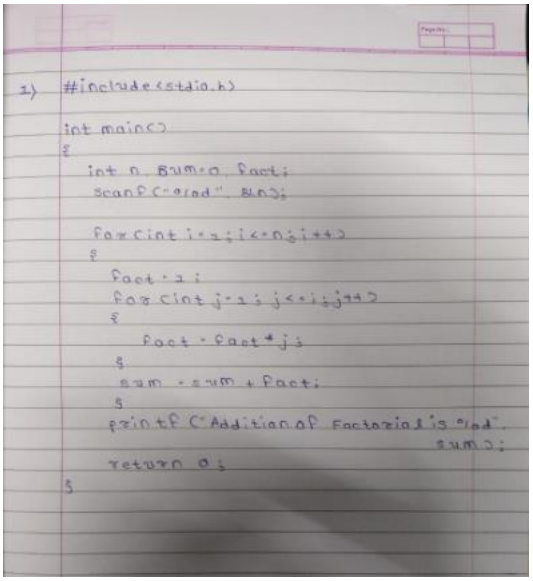
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 1

Aim: Write a program to find sum of 1! + 2! + 3! + 4! + 5! Up to n terms

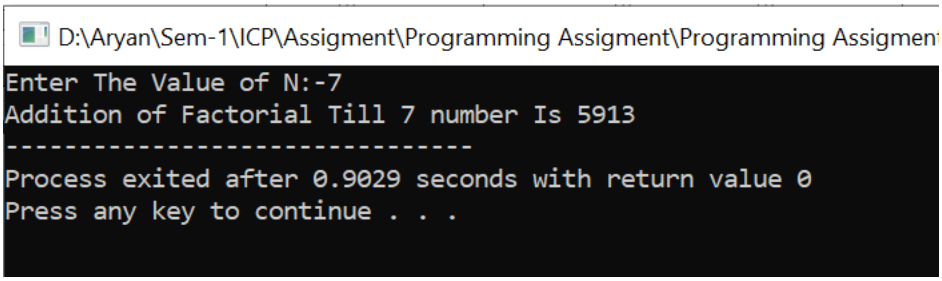
Software: Dev C++

Code:



```
1) #include<stdio.h>

int main()
{
  int n, sum=0, fact;
  scanf("%d", &n);

  for(int i=1;i<=n;i++)
  {
    fact=1;
    for(int j=1;j<=i;j++)
    {
      fact=fact*j;
    }
    sum=sum+fact;
  }
  printf("Addition of Factorial is %d", sum);
  return 0;
}
```

Output:



```
D:\Aryan\Sem-1\ICP\Assigment\Programming Assigment\Programming Assigment
Enter The Value of N:-7
Addition of Factorial Till 7 number Is 5913
--------------------------------
Process exited after 0.9029 seconds with return value 0
Press any key to continue . . .
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

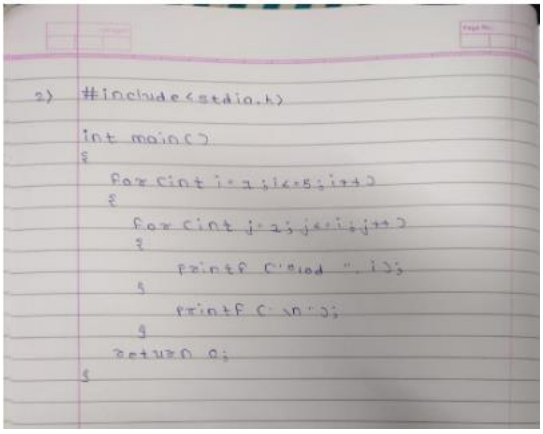
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 2

Aim: Print pattern like follow.

Software: Dev C++

Code:



Output:

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

--------------------------------
Process exited after 0.0603 seconds with return value 0
Press any key to continue . . .
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

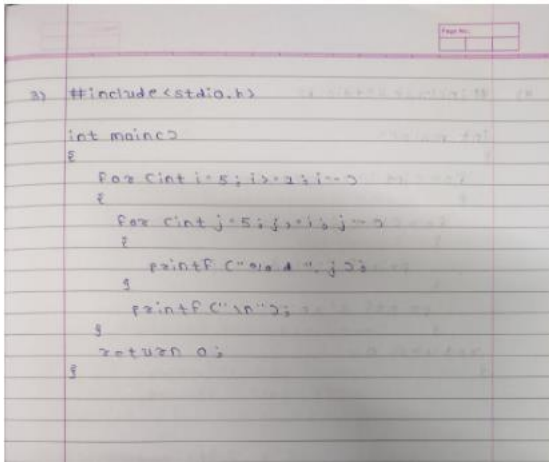
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 3

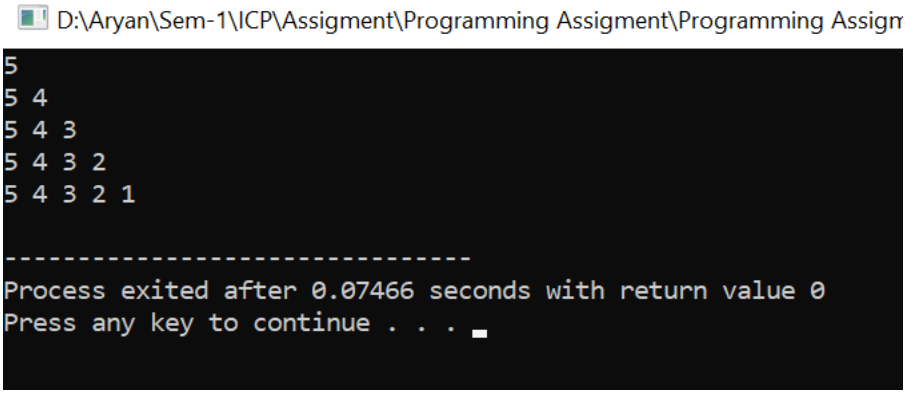
Aim: Print pattern like follow.

Software: Dev C++

Code:-



Output:



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

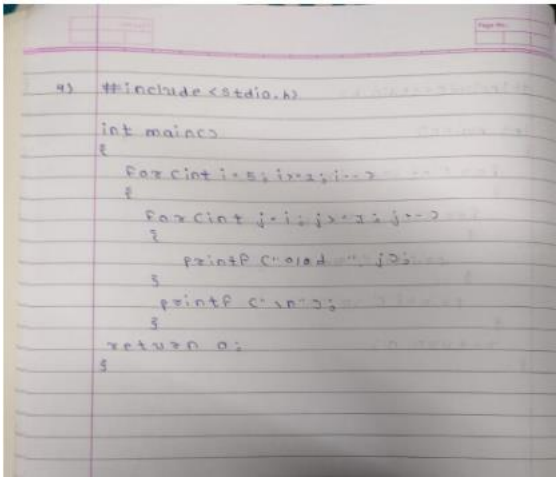
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 4

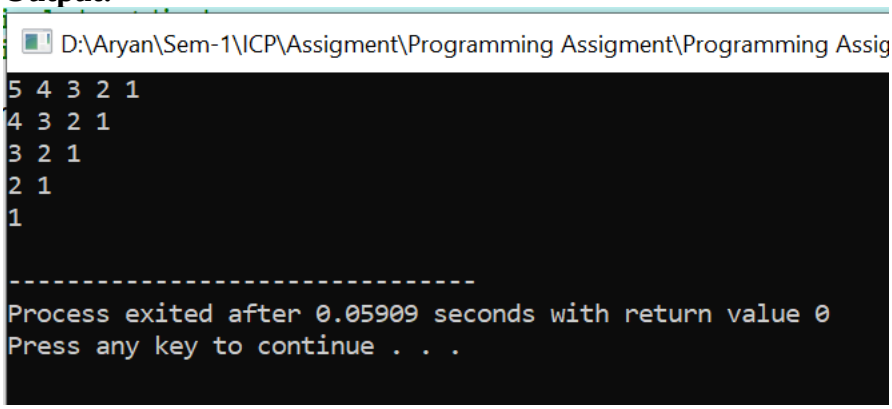
Aim: Print pattern like follow.

Software: Dev C++

Code:-



Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

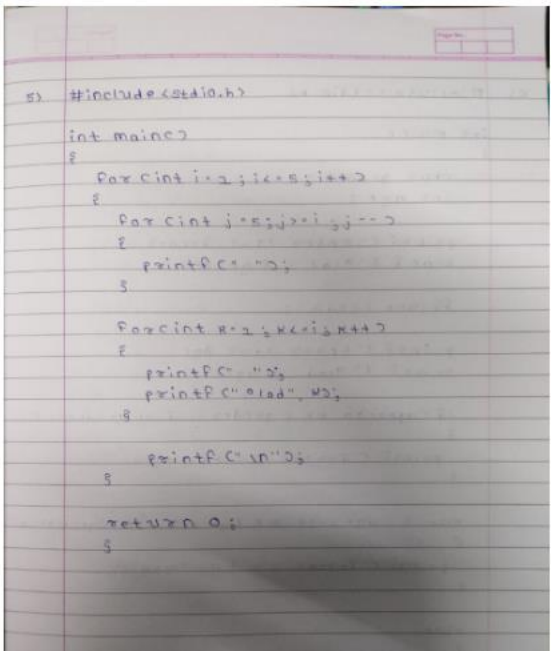
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 5

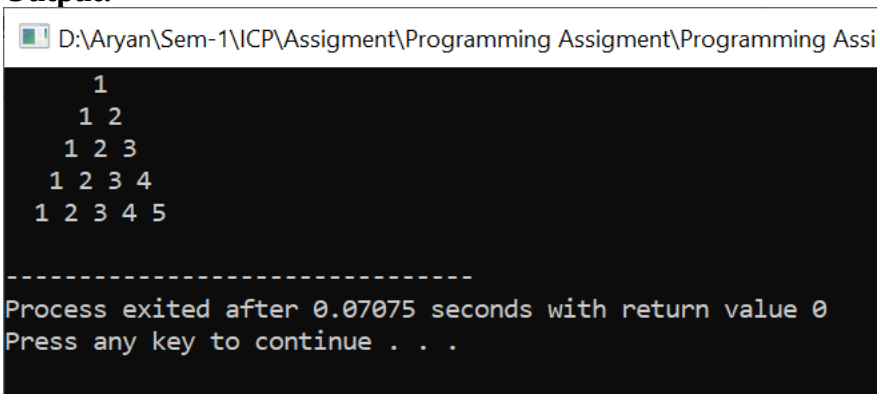
Aim:- Write a program that perform the following output for n rows

Software:- Dev C++

Code:-



Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

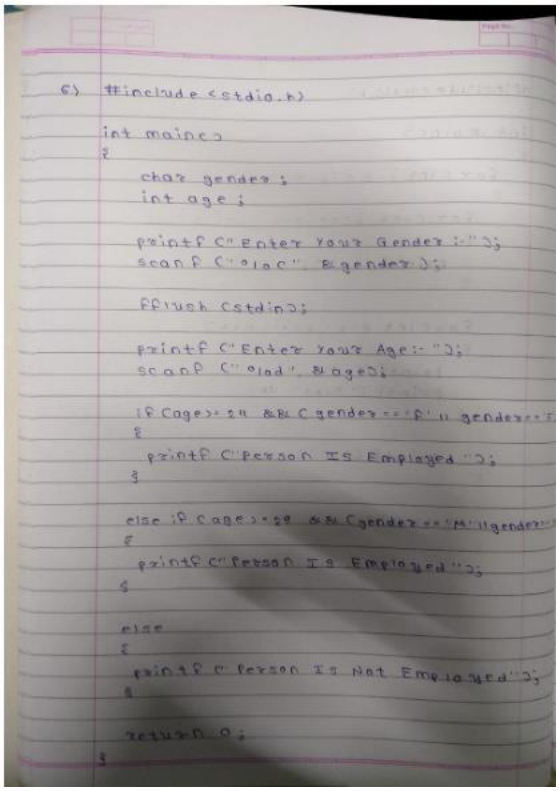
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 6

Aim :- A company has introduced a policy of recruiting employees based on their sex and The policy is as follows:
• For a female category the eligibility criterion is that the age of a person should be more than 24.
• For a male category the age of a person should be more than 28.
Write a program to find out whether a person can be employed if the age and sex of the person is entered through the keyboard.

Software:- Dev C++

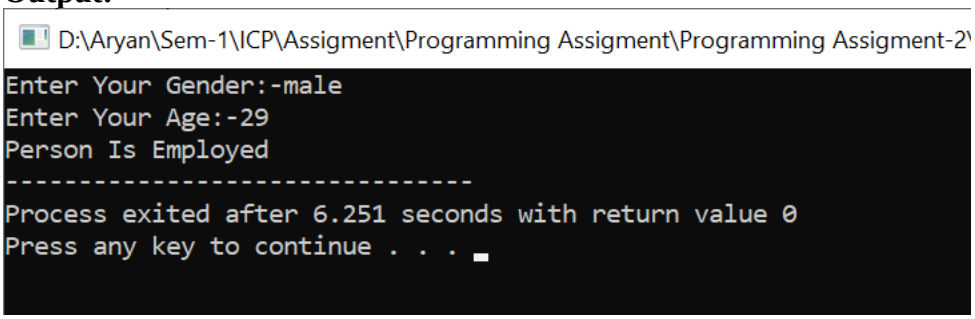
Code:-



```
#include <stdio.h>

int main()
{
    char gender;
    int age;

    printf("Enter Your Gender:");
    scanf("%c", &gender);

    fflush(stdin);

    printf("Enter Your Age:");
    scanf("%d", &age);

    if(age>=24 && (gender=='F' || gender=='f'))
    {
     printf("Person Is Employed");
    }

    else if(age>=28 && (gender=='M' || gender=='m'))
    {
     printf("Person Is Employed");
    }

    else
    {
     printf("Person Is Not Employed");
    }

    return 0;
}
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

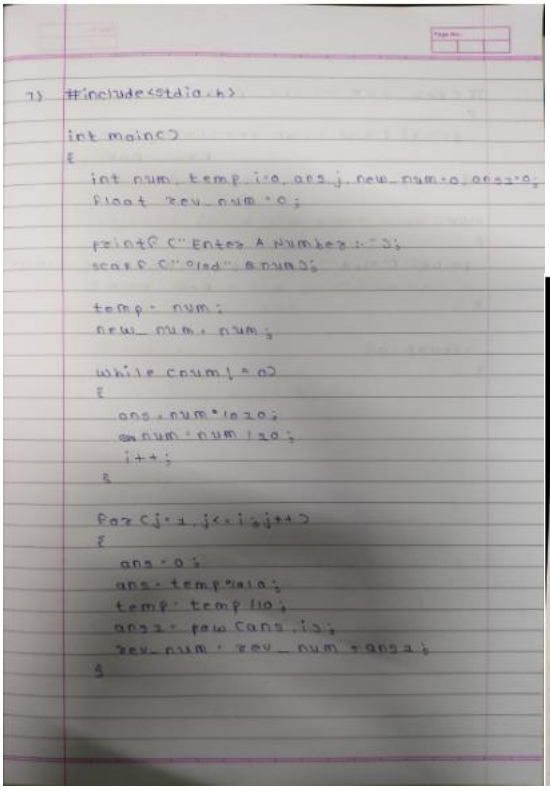
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 7

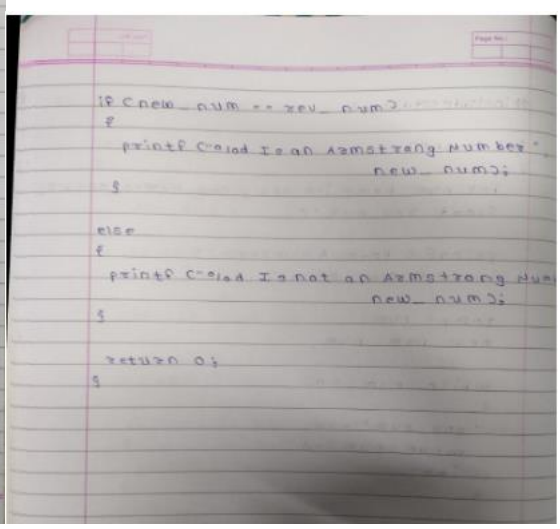
Aim:- Write a program to check whether a number is an Armstrong number or not. (Armstrong number: the addition of the cube of the digit of a number = the number For example 153, 13 + 53 + 33 =153.)

Software:- Dev C++

Code:-



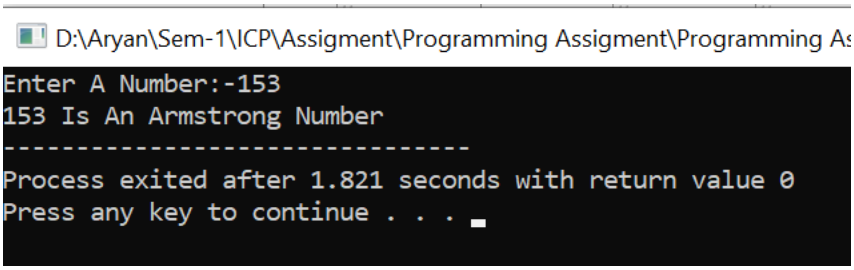
```
#include<stdio.h>

int main()
{
  int num, temp, i=0, ans, j, new_num=0, ans2=0;
  float rev_num=0;

  printf("Enter A Number:-");
  scanf("%d", &num);

  temp = num;
  new_num = num;

  while(num!=0)
  {
    ans = num%10;
    num = num/10;
    i++;
  }

  for(j=1;j<=i;j++)
  {
    ans = 0;
    ans = temp%10;
    temp = temp/10;
    ans2 = pow(ans,i);
    rev_num = rev_num+ans2;
  }
```



```
  if(new_num == rev_num)
  {
    printf("%d is an Armstrong Number",
                                new_num);
  }

  else
  {
    printf("%d is not an Armstrong Num
                                new_num);
  }

  return 0;
}
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

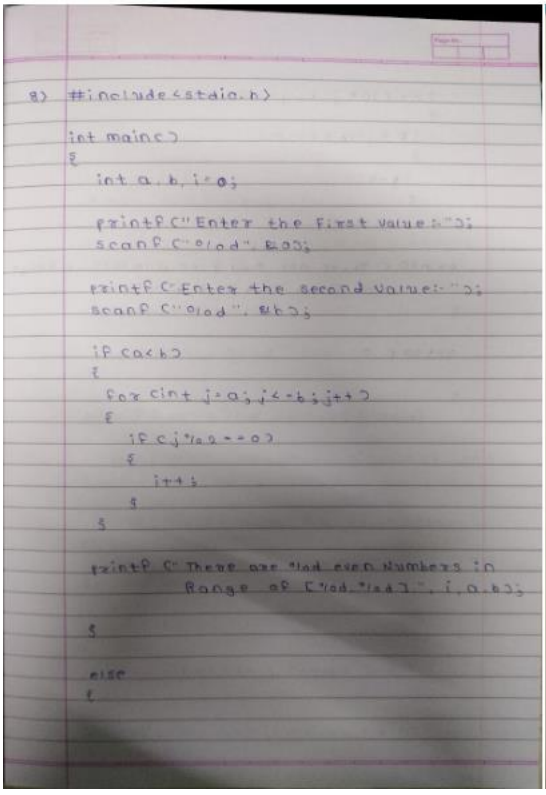
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 8

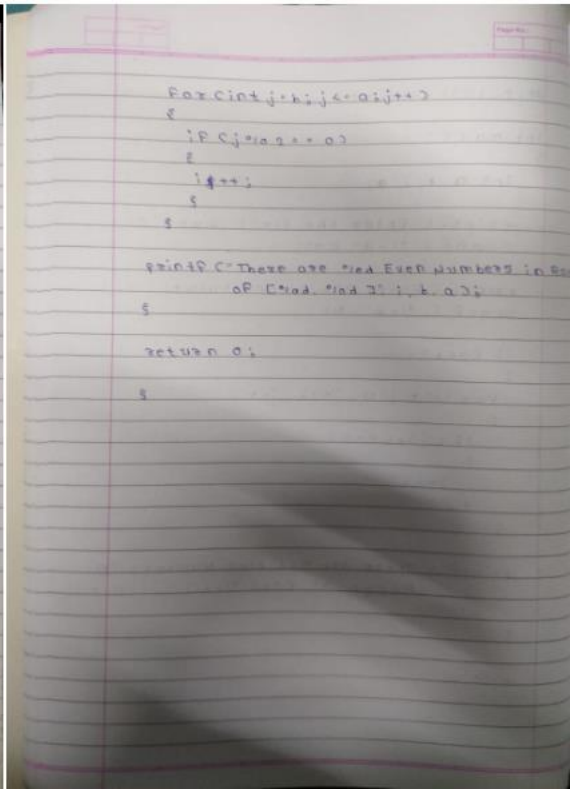
6. **Aim:-** Write a program to count the number of even numbers in a range provided by the user

Software:- Dev C++

Code:-



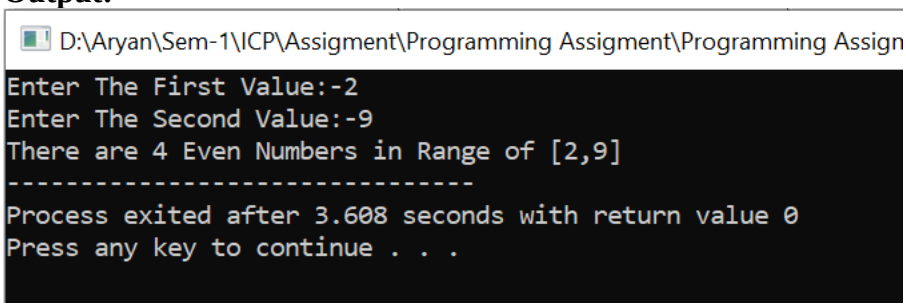
```
#include<stdio.h>

int main()
{
  int a, b, i=0;

  printf("Enter the First value:");
  scanf("%d", &a);

  printf("Enter the second value:");
  scanf("%d", &b);

  if(a<b)
  {
   for(int j=a; j<=b; j++)
   {
     if(j%2==0)
     {
       i++;
     }
   }

  printf("There are %d even Numbers in
          Range of [%d,%d]", i, a, b);

  }

  else
  {
```



```
  for(int j=b; j<=a; j++)
  {
    if(j%2==0)
    {
      i++;
    }
  }

  printf("There are %d Even Numbers in
          of [%d, %d]", i, b, a);
}

  return 0;

}
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

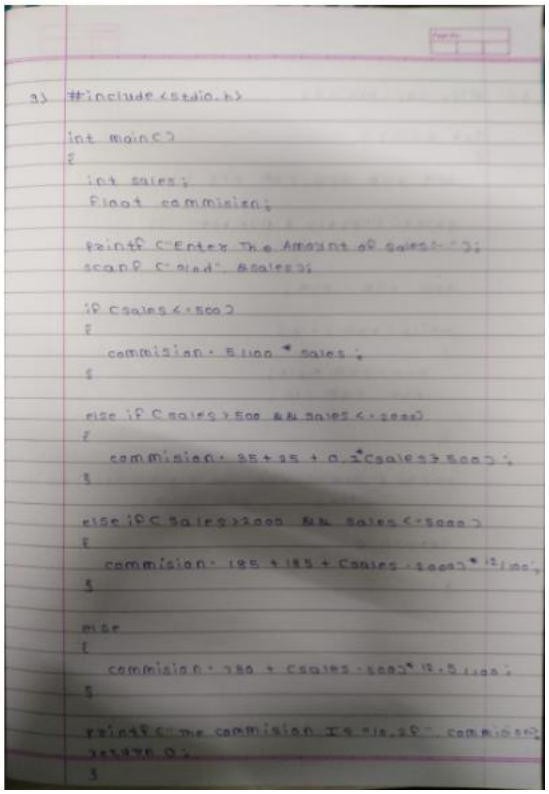
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 9

Aim:- Calculate the commission for a sales representative as per the sales amount:
if sales <= Rs 500, commission is 5%.
• if sales > 500 and <= 5000, commission is Rs 35 plus 10% above Rs 500.
• if sales > 2000 and < = 5000, commission is Rs 185 plus 12% above Rs 2000.
• if sales > 5000, commission is 12.5%

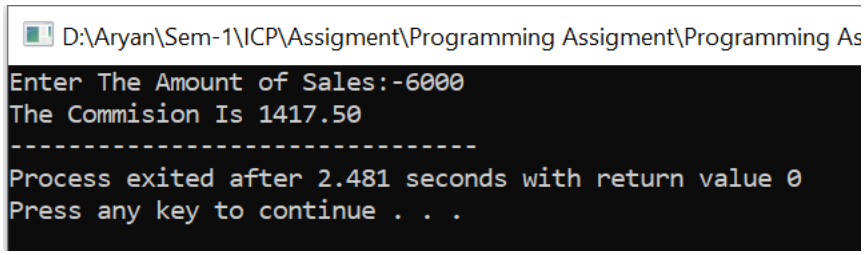
Software:- Dev C++

Code:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

Output:-



Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030

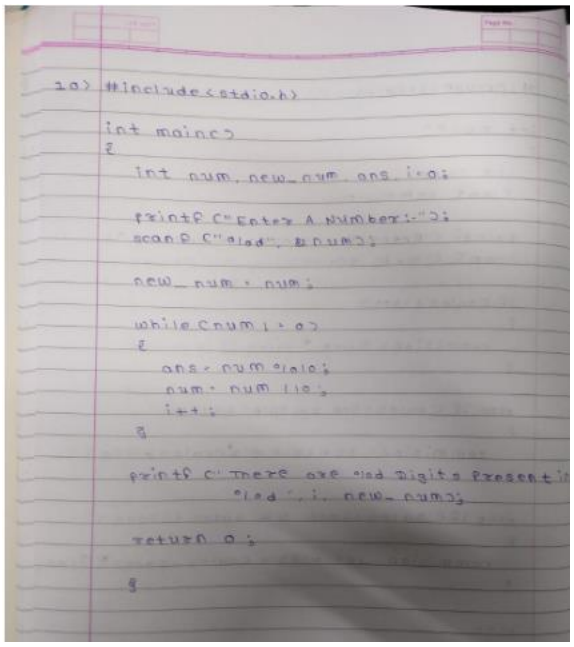
Marwadi University
Faculty of Technology
Department of Information and Communication Technology

Experiment: 10

Aim:- Write a program to count the digits of a number

Software:- Dev C++

Code:-



```
10) #include<stdio.h>

int main()
{
   int num, new_num, ans, i=0;

   printf("Enter A Number:-");
   scanf("%ld", &num);

   new_num = num;

   while(num != 0)
   {
      ans = num %10;
      num = num /10;
      i++;
   }

   printf("There are %ld Digits Present in
          %ld", i, new_num);

   return 0;

}
```

Output:-

```
D:\Aryan\Sem-1\ICP\Assigment\Programming Assigment\Programming Assigment-
Enter A Number:-123456789
There are 9 Digits Present in 123456789
--------------------------------
Process exited after 3.823 seconds with return value 0
Press any key to continue . . .
```

Student Name:- Aryan Dilipbhai Langhanoja
Roll_No_:- 92200133030