OUTPUT:-

**** Demostrate of various datatype****
Name of The Student : Abhishek S.B Singh.
Address of The Student : mumbai
Roll no. of The Student : 1771
percentage of Student : 78%
Mobile_no. of The student: 8766741697.
Grade of The student : A.
Student name : Abhishek S.B Singh.
Student address : mumbai
Student percentage : 78%
Student grade : A
Student mobile_no : 8766741697

PRACTICAL NO :- 1

Aim :- Program to understand The Basic datatype & I/O

(Programe-I)

```
#include <stdio.h>
#include <conio.h>
void main
{
    char name[50];
    char add[50];
    int roll_no;
    float percentage;
    char grade;
    char mob[10];
    clrscr();
    print("Demostrate of various datatype");

    printf("\n Name of The Student: ");
    gets(name);
    printf("\n Address of student:");
    Scanf("%s", &add);
    printf("\n Roll no. of The student:");
    Scanf("%d", &Rollno.);
    printf("\n percentage of student:");
    Scanf("%f", &percentage);
    printf("\n Grade of student:");
    Scanf("%s", &Grade);
    printf("\n mobile no.:");
    print("%s", &mob);
```

```
printf("\n student name : %s ", name);
printf("\n student address : %s ", addr);
printf("\n student rollno : %d ", roll_no);
printf("\n student percentage : %f ", percent);
printf("\n student Grade : %c ", grade);
printf("\n student mobileno : %los", mob);
getch();
}
```

Program II

Source Code:

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int side, area;
    clrscr();
    printf("Enter the side \n");
    Scanf("%d", &side);
    area = side * side;
    printf("\n Area of Square %d", area);
    getch();
}
```

OUTPUT:

Enter the side: 10

Area of Square: 100

15/01/2020

OUTPUT 8:-

Enter 1st number: 8
Enter 2nd number: 6
Addition of 2 number: 14
Substraction of 2 number: 2
multiplication of 2 number: 48
Division of 2 number: 1.3333

PRACTICAL NO: 2

Q. AIM: Write a C- program which will show the use of various different type of operators.

Arithmatic operators
SOURCE CODE

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int num1, num2, add, sub, mul, div;
    clrscr();
    printf("Enter first number:");
    scanf("%d", &num1);
    printf("Enter second number:");
    scanf("%d", &num2);
    add = num1 + num2;
    printf("Addition of 2 number: %d\n", add);
    sub = num1 - num2;
    printf("Substract of 2 number: %d\n", sub);
    mul = num1 * num2;
    printf("multiply of 2 number: %d\n", mul);
    div = num1 / num2;
    printf("Divide of 2 number: %d\n", div);
}
getch();
```

logical operators.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int x,y,z, value1, value2, value3,
  value4, value5;
  clrscr();
  printf("enter first value:");
  scanf("%d", &x);
  printf("Enter 2nd value:");
  scanf("%d", &y);
  printf("Enter 3rd value:");
  scanf("%d", &z);
  value1 = (x<y) && (z>5);
  printf("value1 is: %d\n", value1);
  value2 = (x==y) || (z<y);
  printf("value2 is: %d\n", value2);
  value3 = (x<y) !! (z==5);
  printf("value3 is: %d\n", value3);
  value4 = !(x==y);
  printf("value4 is: %d\n", value4);
  value5 = (x=y);
  printf("value5 is: %d\n", value5);
  getch();
}
```

OUTPUT:-

The Biggestnomber is 100

PRACTICAL No: 3

AIM:- Decision statement

Write a program to find out odd & Even Numbers.

ALGORITHM:-

Step 1: Start
Step 2: [Take input] Read a number from user
Step 3: check if number %2 == 0 then
print Even Number.
Step 4: Exit

SOURCE CODE:-

```
#include <stdio.h>
#include <conio.h>
void main()
{
 int n;
 clrscr();
 printf("Enter a number :");
 scanf("%d", &n);
 if (n%2==0)
   {
    printf("Even number!!!");
   }
```

```
else
  {
   printf ("odd number!?");
  }
 getch();
}
```

Write a program to find the Entered year Leap year or not?

ALGORITHM:

Step 1: start
Step 2: [Take Input] Read from the user
Step 3: if year % 4 == 0 & year % 400 == 0 or
year % 4 == 0 & year % 100 != 0
print NOT A LEAP YEAR.
Step 4: Exit

SOURCE CODE:

```
#include<stdio.h>
#include<conio.h>
void main()
 {
  int year;
  clrscr();
  printf("Enter a year:\n");
  scanf("%d", &year);
```

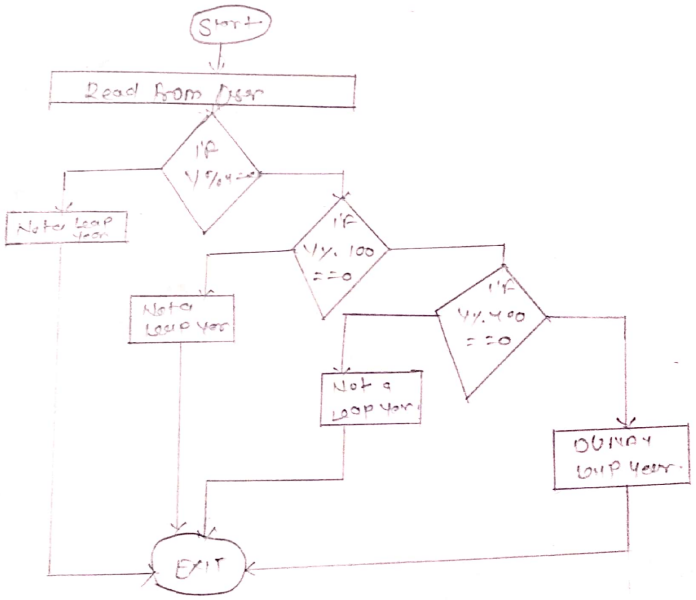
```
    if (year % 4 == 0)
    {
      if (year % 100 == 0)
        {
          if (year % 400 == 0)
          {
          printf ("Leap year!")
          }
        else
          {
          printf ("NOT a leap year")
          }
        }
      else
        {
          print f ("Not a Leap year")
        }
    }
      else
        {
        printf ("Not a Leap year")
        }
    getch();
}
```


OUTPUT

1) Enter a year : 2017
   Not a Leap Year

2) Enter a year : 2020
   Leap Year

FLOWCHART:



Write a program to check whether the alphabet is vowels or consonant

ALGORITHM:-

Step-1 Start
Step2:- [Take Input] Read character value from user.
Step3:- [Check] if, value == "a" || value == 'e' ||
value == 'i' || value = 'o' || value == 'u' ||
value = "A" || value = "E" || value = "I" ||
value = "O" || value "U"
Step 4:- Exit

SOURCE CODE:-

```
#include <stdio.h>
#include <conio.h>
void main
{
 char a;
 clrscr();
 printf("Enter the alphabets:");
 Scanf("%c", &a);
  if(a == 'a' || a == 'e' || a == 'i' || a == 'o' ||
     a == 'u' || a == 'A' || a == 'E' || a == 'I' ||
     a == 'O' || a == 'U')
  {
   printf("vowels");
  }
```

Write a program to find whether the cha
vowels or consonant

ALGORITHM:-

Step:-1 Start
Step2:- [Take Input] Read character value from usr.

Step3:- [Check] if, value == "a" || value == 'e' ||
value == 'i' || value = 'o' || value == 'u' ||
value = "A" || value = "E" || value = "y" ||
value = "O" || valw "U"
Step 4:- Exit

SOURCE CODE:-

```
#include <stdio.h>
#include <conio.h>
void main
{
 char a;
 clrscr();
 printf ("Enter the alphabets!");
 Scanf ("%c", &a);
   if (a == 'a' || a == 'e' || a == 'i' || a == 'o' ||
       a == 'u' || a == 'A' || a == 'E' || a == 'I' ||
       a == 'O' || a == 'U')
   {
    printf ("vowels");
   }
```

ii

SOURCE CODE :-

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int a[5], size, i;
clrscr();
    printf("Enter the size of array you want enter");
    scanf("%d", &size);
    printf("\n Enter the value of a a[%d]
            elements: ", i);
    scanf("%d", &a[i]);
}
printf("\n The array element are:");
for(i=0; i<size; i++)
{
    printf("\n a[%d] = ", i);
    printf("%d", a[i]);
}
getch();
}
```

OUTPUT:-

Enter the size of array you want : 5
Enter the value of a[0] element : 11
Enter the value of a[1] Element : 12
Enter the value of a[2] Element : 13
Enter the value of a[3] Element : 14
Enter the value of a[4] Element : 15

The Element of array are:

a[0] = 11
a[1] = 12
a[2] = 13
a[3] = 14
a[4] = 15

Fibonacci series using Array

Write a program in c to develop Fibonacci using array.

Algorith:

step1: Declare a array of anysize of data type int.

step2: Accept a value from user till you want to display the Fibonacci series.

step3:- Initialize first element to 1 as series star from 0 & 1

step4:- Use for loop to develop Fibonacci series.

step5: Display the series using printf() fortn

SOURCE CODE:-

```
#include <stdio.h>
#include <stdio.h>
void main()
{
    int a[20], term, i, f;
    clrscr();
    printf("\n Enter the number of terms: ");
    scanf("%d", &term);
    a[0] = 0;
    a[1] = 1;
    printf("%d\n", a[0]);
    printf("%d\n", a[1]);
    for (i=2; i< term; i++)
    {
        a[i] = a[i-1] + a[i-2];
        printf("\n %d", a[i]);
    }
    getch();
}
```

Output:

All even number

2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50

Univ.

PRACTICAL NO:-4 41 42

Aim:- Write a program to print even number Between 1-50 using while loop.

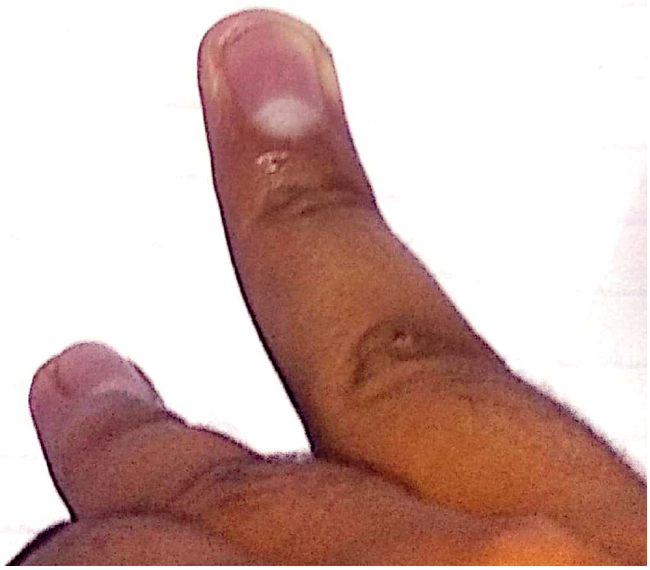
Source code:

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, n=50;
    clrscr();
    printf("All Even number from 1 to 50 are:\n",
                                        i=2;
    while (i<=n)
    {
        printf("%d \n", i);
        i = i+2;
    }
    getch();
```

Algorithm.

Steps:

1. Start
2. Initialize two variable with static variable where n=50 size
3. Use while loop for printing the even number upto the range 50
4. Adding 2 to current even number will give next even number
5. Display the appropriate output
6. Stop.



Output:-

odd number 1 to 50 are:

1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49

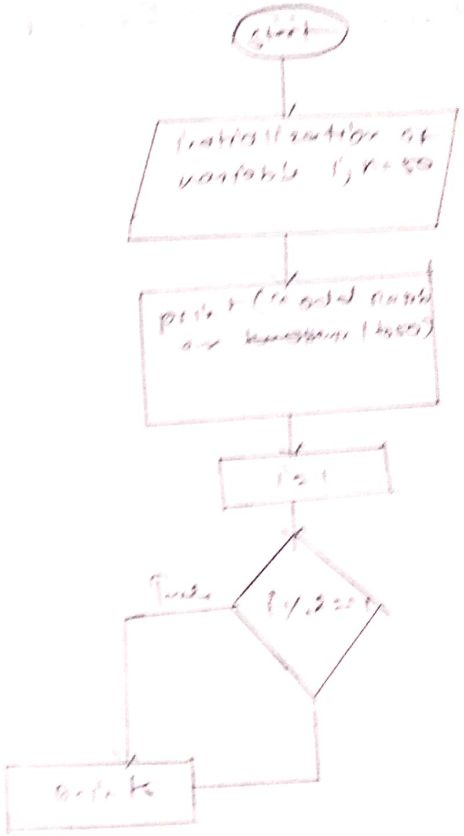
b) Aim:- Write a C program to print odd number 1-50 using do while loop

Source code:

```
#include <stdio.h>
#include <conio.h>
void main
{
    int i, n=50;
    clrscr();
    printf("odd number from 1 to 50 are:\n",n);
    i=1;
    do
    {
      if (i%2==1)
      {
          printf("%d\n", i);
      }
      i++;
    }
    while (i<=n);
    getch();
}
```

Algorithm:

1. Start:
2. Initialize two static int variable n=50, i=1;
3. Use do while loop for iterate from 1 to 50
4. Use if condition statement to check whether given number is even or odd.
5. Increment the value of 'i'
6. Display the appropriate output
7. Stop



11

Output:-

Enter the range 10:

Sum of all even Numbers upto the Range are :30

Algorithm:

Steps

1) Start
2) Initialize three variable Two and one is dynamic
   i=2 ; sum = 0; n;
3) Use for loop for check the the given range
4) add current even number
5) Display the appropriate
6) Stop