

SS:

Output:

Program 1

Enter the number (l) = 7

Enter the number (b) = 58

Enter the area is 406

Program 1

Start

Initialize length(l),  
breadth(b), area(a)

Aim: Program to understand basic datatypes, and input and output

Program 1) Area of rectangle.

Algorithm . . .

Step1: Specify 2 header files namely stdio.h

Step2: Define 3 variables of datatypes. Like ready  
l = length, b = breadth and area.

Step3: Use clrscr().

Step4: Accept the length of triangle from the user  
and store it in the variable l.

Step5: Accept the breadth from the user and  
store in var. b.

Step6: calculate the area of the rectangle by  
multiplying the width and height i.e. length  
and breadth taken from user.

Step7: Print the area of the rectangle.

Source code:-

#include <stdio.h>

#include <conio.h>

void main ()

int l, b, area;

print ("Enter the number");

Scant ("%d", &l, &b)

area = l\*b;

print f ("The area is %d");

Program 2: Volume of sphere.

```
#include <stdio.h>
#include <conio.h>
void main ()
{
    clrscr ();
    float r, v, pi;
    printf ("Enter the radius");
    scanf ("%f", &r);
    pi = 3.14;
    v = 4 / 3 * pi * r * r * r;
    printf ("The volume is %f", v);
    getch ();
}
```

Program 3: Average of 3 numbers

```
#include <stdio.h>
#include <conio.h>
void main ()
{
    clrscr ();
    float a, b, c, avg;
    printf ("Enter the number");
    scanf ("%f %f %f", &a, &b, &c);
    avg = (a + b + c) / 3;
    printf ("Avg: %f", avg);
    getch ();
}
```

Output

24

program 2

Enter the radius=7

The value is 1436.026733

Program 3

Output:

Enter the numbers: 7,0,2

avg: 6.01

:S

Program 4

Output:

Enter value in celsius: 3

Fahrenheit: 37.40002

Program 5

Enter value of Fahrenheit : 80

Celsius: 26.666

25

Program 4: Convert temperature from celsius to fahrenheit

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    float c, f;
    printf("Enter the value of celsius: ");
    scanf("%f", &c);
    f = (c * 9 / 5) + 32;
    printf("fahrenheit = %f", f);
    getch();
}
```

Program 5: Convert temperature from fahrenheit to celsius.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    float c, f;
    printf("Enter the value of fahrenheit: ");
    scanf("%f", &f);
    c = (f - 32) * 5 / 9;
    printf("celsius = %f", c);
}
```

## Practical - 2

Aim: Programs on operators and representation.

Program 1:

Algorithm:

Step 1: Initialize four variable with datatype int.

Step 2: Store the value 25 in a and 10 in b.

3: Print value of a and b.

4: Do the expression  $c = d + a - b$ .

5: Do the part increment b and add to a, store in c.

6: Print the value a, b, c and d.

7: Do a/b and store in c.

8: Do a/b and store in d.

9: print the value c and d.

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

```
#include <conio.h>
```

```
void main()
```

```
{
```

```
int a, b, c, d;
```

```
clrscr();
```

```
a = 25, b = 10;
```

```
printf("In a=%d, b=%d", a, b);
```

```
(= ++a - b,
```

```
d = b + + + a;
```

```
printf("In a=%d, b=%d, c=%d, d=%d, a, b, c",
```

```
c = a * b
```

```
d = a / b
```

```
printf("In c=%d, d=%d", c, d);
```

```
getch();
```

Output :-

$a = 25, b = 10$ .

$a = 20, b = 11, c = 15, d = 38$

$c = 4, d = 2$ .

26

85

Output:

$a = 8.00000$ ,  $b = 15.00000$ ,  $c = 3.000000$

~~$a = 8.000000$ ,  $b = 5.50000$ ,  $c = 2.000000$~~

## Program 2

algorithm

1. Initialize variable  $a, b, c$  with  $a=8, b=15, c=3$ , &  $x, y, z$
2. Print the value of  $a, b, c$ .
3. Perform  $a - b/3 + 8 * 2 - 1$  and store in  $y$ .
4. Perform  $a - b / (3 + c) * (2 - 1)$  and store in  $y$ .
5. Perform  $a - (b ((8 + 8) * 2) - 1)$  and store in  $z$ .
6. Print the value of  $x, y, z$ .

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

void main()
{
    float a, b, c
    a = 8
    b = 15
    c = 3
    printf("a = %.f, b = %.f, c = %.f", a, b, c)
    x = a - b / 3 + 8 * 2 - 1;
    y = a - b / (3 + c) * (2 - 1);
    z = a - (b * 3 + 1) * 2 - 1;
    printf("x = %.f, y = %.f, z = %.f", x, y, z);
    getch();
}
```

## Program 3

### Algorithm

1. Initialize a, b, c, ans with datatype  $\text{int}$
2. clear the screen
3. Store the value in  $a=6$ ,  $b=4$ ,  $c=1$
4. perform expression  $\text{ans} = a \& b \& c++ / / \text{cout};$
5. Store the value in ans
6. Print the value for a, b, c, ans

```
#include < stdio.h>
#include < conio.h>
void main()
{
    int a,b,c , ans;
    clrscr();
    a=6, b=4, c=1;
    ans = a & b & c++ / / cout;
    printf("a=%d; b=%d, c=%d ans=%d", a, b, c, ans);
    getch();
}
```

Output:

~~a = 7, b = 5, c = 1, ans = 1~~

28

## Program 4:

### Algorithm

- 1: Initialize variable a, b, c, & with datatype int
- 2: Clear the screen
- 3: Store x=10
- 4: pre post increment the value of x and store in a
- 5: pre decrement the value of x and store in b.
- 6: perform  $a++$  &  $x--b$  and store in c.
- 7: print the value of a, b, c, x.
- 8: End.

```
#include <stdio.h>
#include <conio.h>
void main ()
{
    int a,b,c,x;
    clrscr();
    x=10;
    a=x+1;
    b=~x;
    c=x++ -~- b
    printf ("a=%d , b=%d , c=%d , x=%d", a,b,c);
    getch();
}
```

03/03

88

$$a = 10$$

$$b = 5^{\circ}$$

$$c = 9^{\circ}$$

$$x = 11$$



### Practical-3

Aim: Program on decision making and branching

Program 1: Check whether no is odd or even

```
#include < stdlib.h >
```

```
#include < conio.h >
```

```
void main()
```

```
{ clrscr();
```

```
int n;
```

```
printf("Enter value of n: ");
```

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

```
= n % 2;
```

```
[ if (r == 0)
```

```
printf("\n n %d is odd", n);
```

```
<
```

```
printf("\n n %d is even", n);
```

```
 getch();
```

Output:

Enter value of n: 12

12 is even

Enter value of n: 51

51 is odd.

Output:

Enter the year 2001  
2001 is not a leap year

Enter the year 2004  
2004 is a leap year.

Program 2: Check if the entered year is a leap year or not.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int x, t;
    printf("Enter the year");
    scanf("%d", &y);
    x = y % 4;
    if (x == 0)
        printf("The year is a leap year");
    else
        printf("It is not a leap year");
    getch();
}
```

Program 3 : Check whether entered alphabet is a vowel or consonant.

```
#include < stdio.h >
#include < conio.h >
void main()
{
    clrscr();
    char ch;
    printf("Enter the alphabet");
    ch = getch();
    if ((ch == 'a') || (ch == 'e') || (ch == 'i') || (ch == 'o') || (ch == 'u') ||
        (ch == 'A') || (ch == 'E') || (ch == 'I') || (ch == 'O') || (ch == 'U'))
        printf("The character is vowel", ch);
    else
        printf("The character is a consonant", ch);
    getch();
}
```

Output:

Enter the alphabet: i

i is a vowel

Enter the alphabet: s

s is a consonant.

```

#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c;
    clrscr();
    printf("Enter 3 nos");
    scanf("%d,%d,%d", &a, &b, &c);
    if (a > b) & & (a > c);
    printf ("In a is greater");
    else if (b > a) & (b > c);
    printf ("In b is greater");
    else
        printf ("In c is greater");
    getch();
}

```

~~Program 5: Program to enter single digit decimal number from keyword and print that digit word from~~

```

#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int n
}

```

282

Output: Enter

3 nos>3  
7

b is greater.

```
printf ("\n Enter single digit decimal no.: ");
scanf ("%d", &n);
if (n == 0)
    printf ("\n zero");
else if (n == 1)
    printf ("\n one");
else if (n == 2)
    printf ("\n two");
else if (n == 3)
    printf ("\n three");
else if (n == 4)
    printf ("\n four");
else if (n == 5)
    printf ("\n five");
else if (n == 6)
    printf ("\n six");
else if (n == 7)
    printf ("\n seven");
else if (n == 8)
    printf ("\n Eight");
else if (n == 9)
    printf ("\n Nine");
else
    printf ("\n error");
getch();
```

Output:

34

Enter single digit decimal no.: 1

One

Enter single digit decimal no.: 15

error

Program 7: Program multiplication using switch to perform addition subtraction

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int a, b, choice;
    printf("\n Select your choice");
    printf("\n 1. addition");
    printf("\n 2. subtraction");
    printf("\n 3. multiplication");
    printf("\n 4. Division");
    printf("\n 5. Exit");
    scanf("%d", &choice);
    if (choice >= 1 & choice <= 4)
}
```

```
printf("\n Enter value of a & b");
scanf("%d %d", &a, &b);
}
```

```
switch (choice)
{
```

Case 1:

$r = a + b$

```
printf("\n r = %d + %d = %d", a, b, r);
break;
```

Case 2:

```
printf("\n r = %d - %d", a, b, r);
break;
```

Output:-

Enter your choice

2

Enter value of a b &

10

-2

28

```
case 3:  
    r = a * b;  
    printf("In %d * %d = %d", a, b, r);  
    break;  
case 4:  
    r = a / b;  
    printf("In %d / %d = %d", a, b, r);  
    break;  
default:  
    printf("In no operation");  
    break;  
}  
getch();
```

Aim: Program to understand looping statements.

Practical-4  
program 1: Program to print even numbers from 1 to 100.

```
#include < stdlib.h>
#include < conio.h>
void main
{
```

```
int i;
clrscr();
for (i=2; i<=20; i+2)
{
    printf(" %d (%d)", i);
}
```

```
getch();
```

~~Program 2~~

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

```
void main()
{
```

```
int f() i;
```

```
clrscr();
```

```
i=1
```

```
while (i<=3)
```

```
{
```

```
k=1;
```

```
while (k<=1)
```

```
{
```

88

Output: 1

2  
4  
6  
8  
10  
12  
14  
16  
18  
20

Output: 2

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

```
printf ("%d", k),  
++k;  
}  
printf ("\n");  
i++;  
}  
getch();
```

Program 3:

```
#include < stdlib.h>  
#include < conio.h>  
void main()  
{
```

```
int l, n, sum, i;
```

```
clrscr();
```

```
printf ("Enter the value of n");  
scanf ("%d", &n);
```

```
i = 1
```

```
sum = 0;
```

```
do
```

```
{
```

```
x = i * 2;
```

```
if (x == 1)
```

```
{
```

```
sum = sum + i; }
```

```
++i; }
```

```
while (i >= n)
```

```
printf ("The sum of all odd no. are %d, sum);
```

```
getch();
```

Output : 3

Enter the value of n 10

38

The sum of all odd no. are 25

88 Output : 4

\*  
\* \*  
\* \* \*  
\* \* \* \*  
\* \* \* \* \*

Output : 5

1  
2  
3  
5  
8  
13  
21  
34  
55  
89  
144  
233  
377  
610  
987  
1597  
2584

## Program 4

```
#include < stdio.h>
#include < conio.h>
void main ()
{
    int i, j;
    clrscr ();
    for (i = 1; i <= 5, i++)
    {
        for (j = 1; j <= i; j++)
        {
            printf (" * ");
        }
        printf ("\n");
    }
    getch ();
}
```

## Program 5:

```
#include < stdio.h>
#include < conio.h>
void main ()
{
    int a, b, f, l;
    a = 1;
    b = 0;
    for (l = 3; l <= 20, l++)
    {
        f = a + b;
        printf (" \n %d ", f);
        a = 5;
        b = 1;
    }
}
```

~~03/03~~

## Practical 5

Q) Write a prg to find the sum of 5 nos.

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

```
#include < conio.h >
```

```
void main()
```

```
{
```

```
int i, num[5], sum = 0;
```

```
clrscr();
```

```
printf("Enter the elements into array:");
```

```
for (i=0; i<5, i++)
```

```
scanf("%d", &num[i]);
```

```
printf("The entered array elements are ");
```

```
for (i=0; i<5, i++)
```

```
printf("%d ", num[i]);
```

```
for (i=0; i<5, i++)
```

```
sum = sum + num[i];
```

```
printf("The sum of element is: %d", sum);
```

```
getch();
```

2) ~~#include < stdio.h >~~

~~#include < conio.h >~~
~~void main()~~
~~{~~
~~int i, num[10], li;~~
~~clrscr();~~
~~printf("Enter 10 value in array:");~~
~~for (i=0; i<10; i++)~~
~~scanf("%d", &num[i]);~~
~~li = num[i];~~

Output:

Enter the elements in a array : 3

4

6

7

Entered array element are : 3 4 6 7  
Sum of elements is : 20

40

Q1

Output:

Enter the values into array 3

-55

22

5

-3

4

11

16

-19

20

no. of positive value present in the given array

6.

```

for (i=1; i<10; i++)
{
    if [l, num[i])
        l = num[i]
}

```

```

printf ("The largest number is %d", l);
getch();
}

```

Program 3: Positive numbers in the array

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

```
#include <conio.h>
```

```
void main()
```

```
{
```

```
clrscr();
```

```
int i, num[10], p;
```

```
printf ("Enter the values into array ");
```

```
for (i=0; i<10; i++)
```

```
scanf ("%d", &num[i]);
```

```
p=0;
```

```
for (i=1; i<10; i++)
```

```
{
```

```
    p = p + 1;
```

```
}
```

```
printf ("%d no of positive no present in the given array", p);
```

```
getch();
```

14

## Program 4:

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int i, num[10], p;
    printf("Enter the value into array");
    for(i=0; i<10; i++)
        scanf("%d", &num[i]);
    p=0
    for(i=0; i<10; i++)
    {
        if (num[i] % 2 != 0)
            p=p+1;
    }
    printf("no. of odd number %d", p);
    getch();
}
```

Enter the value into array

2

3

4

5

6

7

8

8

9

42

No. of odd numbers is 5.

2A

O/P:  
Enter the values into array:

4

6

9

Sortd array : (u c q)

program : 5

print array in ascending order

#include < stdio.h >

#include < conio.h >

void main ()

{

clrscr ();

int i , j ; , num [5];

printf ("Enter the values into array ");

for ( i = 0 ; i < 5 ; i ++ )

scanf ("%d" , & num [i]);

for ( j = 0 ; j < 5 ; j ++ )

{

if ( num [i] > num [j] )

{

t = num [i];

num [i] = num [j];

num [j] = t;

}

printf ("sorted array ");

for ( i = 0 ; i < 5 ; i ++ )

{

printf ("%d \t" , num [i]);

}

getch ();

Program 6: Program to print matrix multiplication

code:

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int x[3][3], y[3][3], z[3][3];
    int, r, c, i, t;
    printf("Enter element of matrix x: ");
    for (r=0; r<3; r++)
    {
        for (c=0; c<3; c++)
        {
            scanf("%d", &x[r][c]);
        }
    }
}
```

```
printf("Enter element of matrix y: ");
for (r=0; r<3; r++)
{
    for (c=0; c<3; c++)
    {
        scanf("%d", &y[r][c]);
    }
}
```

```
printf("Enter the value of matrix z: ");
for (r=0; r<3, r++)
{
    for (c=0; c<3, c++)
    {
        . . .
    }
}
```

Enter the elements of matrix  $x:2$  43

1  
2  
3  
4  
5  
6  
7  
8

Enter elements of matrix  $y:3$

2  
2  
2  
2  
2  
2  
2  
2

matrix  $x:$

7	12	10	10
27	24	24	
48	42	42	



```

{ Scanf ("r.d.", &r);
}
for (r=0; r<3; r++)
{
    for (c=0; c<3; c++)
    {
        t = 0;
        for (k=0; k<3; k++)
        {
            t = t + x[r][k] * y[k][c];
        }
        z[r][c] = t;
    }
}

```

```

printf ("In matrix z:");
for (r=0; r<3; r++)
{

```

```

    for (c=0; c<3; c++)

```

```

    printf ("%d %d", z[r][c]);
}

```

```

printf ("\n");
}

```

```

getchar();
}

```

~~03/03~~

## Practical 5

also: Program using string function

program 1 < stdio.h>  
#include < conio.h>  
void main()

```
    clrscr();
    char w1[20], w2[20], w3[20], w4[20];
    cout << "Enter text of word : ";
    cin << w1;
    cout << "Enter word 1 = ";
    cout << w1;
    cout << endl;
    cout << "Enter word 2 = ";
    cout << w2;
    cout << endl;
    cout << "Enter word 3 = ";
    cout << w3;
    cout << endl;
    cout << "Enter word 4 = ";
    cout << w4;
    getch();
}
```

program 2 :

#include < stdio.h>

#include < conio.h>

#include < String.h>

void main()

```
    clrscr();
    string city[6] = {"paris", "mumbai", "delhi", "london", "newyork", "chennai"};
    for (int i = 0; i < 6; i++)
        cout << city[i] << endl;
```

Output:

Enter text of word: My name is Payan  
word 1. My  
word 2. name  
word 3 . is  
word 4 Payan

Output:

P

G

Y

i

S

```

putchar ('c');
printf ("in");
p;
getch ();
}

```

### program 3

```

#include < stdio.h>
#include < conio.h>
#include < string.h>
void main ()
{
    char s[20];
    printf ("enter the of text:");
    gets (s);
    puts (s);
    getch ();
}

```

Output  
Enter line of text: Hello world  
Hello world

## Program 4:

```
#include <stdio.h>
#include <conio.h>
#include <string.h>

void main()
{
    clrscr();
    char l[80], p;
    int k=0;
    printf("Enter the string:");
    do {
        p = getch();
        l[k] = p;
        ++k;
    } while (p != '\n');
    l[k] = '\0';
    printf("\n%.s", l);
    getch();
}
```

Output:

Entered line of text: My name is shinchan  
My name is shinchan

## Practical 7.

Area Programs using  
Program P.- Area and

#include < stdlib.h>

#include < conio.h>

void circle ( void );

void main ( )

{

clrscr ( );

circle ( );

getch ( );

}

void circle ( void )

{

int r;

float a;

printf ( " Enter value of r: " );

scanf ( "%d" &r );

USER- dashed denotes  
circumference of circle.

SA

Output:-

Enter value of  $\pi$  ~ 3.14

Area = 78.506666

Circumference = 31.4600000

Program 2:- Print digits of the entered no

```
#include <stdio.h>
#include <conio.h>
int get_no(void);
void main()
{
    clrscr();
    int n;
    n = get_no();
    printf("The Entered num=%d", n);
    getch();
}
int get_no()
{
    printf("Enter num: ");
    scanf("%d", &n);
    return n;
}
```

Program 3:- Sum of digits of entered no

```
#include <stdio.h>
#include <conio.h>
void abc(int n);
void main()
```

50

Output:-  
E-1st num: 5  
Entered num: 5

```
scanf ("%.d", &n);
ab(n);
getch();
```

```
void ab(int n)
```

```
{  
int r; s = 0;  
while (n != 0)
```

```
{  
r = n % 10;
```

```
s = s + r;
```

```
n = n / 10;
```

```
}
```

```
printf ("Sum of digits = %.d", s);
```

Program no.:- Average of 3 entered numbers

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

```
#include <conio.h>
```

```
void average (int sum);
```

```
void sum (int a, int b, int c);
```

```
void main ()
```

```
{
```

```
clrscr();
```

```
int x, y, z;
```

```
printf ("Enter value of x, y, z");
```

```
scanf ("%d %d %d", &x, &y, &z);
```

```
sum (x, y, z);
```

```
getch();
```

~~Output~~

~~Later in heap 0x7f  
Final digit = 6~~

```
void sum (int a, int b, int c)
{
    int s;
    s = a + b + c;
    average (s);
}
```

```
void average (int sum)
```

```
float avg;
```

```
avg = sum / 3.0;
```

```
printf ("The average is %.2f", avg);
```

Program 5:

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

```
#include <conio.h>
```

```
int factorial (int n);
```

```
void main ()
```

```
{ clrscr (); }
```

```
int x, fact;
```

```
printf ("\nEnter value of x ! ");
```

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

```
fact = factorial (x);
```

```
printf ("\n Factorial of %d is %d", x, fact);
```

```
 getch();
```

```
int factorial (int n);
```

```
{ int f;
```

~~2010  
and value of 1,111,111,111  
done by 6 days~~

```
if (n == 1)  
    return 1  
else:  
    f = n * factorial(n-1);  
    return f
```

BS  
03/03

25

Output:  
integer value of  $x = 4$   
Factorial of  $4 = 24$

23

### Practical - 8

Aim:- Programs on structures  
Program :- Student Structure  
#include < stdio.h>  
#include < conio.h>  
Struct Student  
{  
int return;  
char name [20];  
int total;  
}  
void main ()  
{  
Struct student x;  
clrscr ();  
printf ("Enter name, roll no and total  
printff (" %d %d %d", &x.name, &x.rollno, &x.total);  
}

Roll no, name and total of student: 1759

~~Roll no: 1759  
Name: Pujali  
Total = 100~~

## Program 2:- Employee comparison.

```

#include < stdio.h>
#include < conio.h>
struct employee
{
    int eno, salary;
};

void main()
{
    struct employee n, r;
    printf("Enter a no. and salary:");
    scanf("%d %d", &n.no, &n.salary);
    printf("Enter a no. and salary:");
    scanf("%d %d", &r.no, &r.salary);
    if (n.salary == r.salary)
        printf("both are equal");
    else
        printf("both are unequal");
    getch();
}

```

2:

Output:

Enter eno and salary: 5 20000

Enter eno and salary: 5 20000

both are equal

Enter eno and employee: 3 15000

Enter eno and employee: 4 20000

both are unequal

2

Program 5:- structure within structure.

```
#include < stdlib.h>
#include < conio.h>

struct employee
{
    int salary;
    char name[10];
};

struct employee bz;
void main()
{
    clrscr();
    bz.salary = 22000;
    bz.name = "Rakesh";
    cout << bz.name << endl;
}
```

Output :-

2011 10. 22

56

Name Pooja S2

Salary = 500

# Aim:- Programs on pointers in C-language

#program 1:

```
#include < stdio.h>
#include < conio.h>
void main()
{
    clrscr();
    int a=12, b=4, x,y *p, *q;
    p=&a;
    p=&b;
    x=*p + *q - 6;
    y=4 * (*p - *q) + 10;
    printf (" \n a = %d", a);
    printf (" \n b = %d", b);
    printf (" \n x = %d", x);
    printf (" \n y = %d", y);
    getch();
}
```

Program 2 :

```
#include < stdio.h>
#include < conio.h>
void main()
{
    clrscr();
    int x[5] = {10, 20, 30, 40, 50};
```

28

Output

$$a = 12$$

$$b = 4$$

$$g = 42$$

$$j = 42$$

$$\cancel{\text{Sum} = 150}$$

```

5.2
int * p; i, sum = 0;
p = & x[0]; j; i<s, i++)
for (i = 0; i < s, i++)
    sum = sum + * p;
    p = p + 1;
printf ("In sum = %d", sum);
getch();
}

```

Program 3:- Pointers as function arguments

```

#include < stdio.h>
#include < conio.h>
void change (int *p);
void main()
{
    clrscr();
    int x = 20;
    change (&x);
    printf ("In x = %d", x);
    getch();
}

```

```

void main (int *p)
for *p = *p + 10;
}

```



Program 4:-

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

```
#include < conio.h >
```

```
void exchange ( int *a, int *b);
```

```
void main ( )
```

```
{  
    int x, y;
```

```
    x = 10;
```

```
    y = 20;
```

```
    printf ("In after exchange x=%d, y=%d", x, y);
```

```
    getch ( );
```

```
    void exchange ( int *a, int *b)
```

```
{  
    int t;
```

```
    t = *a;
```

```
*a = *b;
```

```
*b = t; }
```

~~02/02~~

82

Output

Before exchange

After exchange

$x = 10, y = 20$

$x = 20, y = 10$

## Practical-10:

Atm:- Program on file handling

Program 1:- Open file & write and close it.

```
#include <stdio.h>
#include <conio.h>
#include <string.h>
int main()
{
    FILE *fp;
    char data[50];
    printf ("opening the file test.c in write mode");
    fp = fopen ("test.c", "w");
    if (FP == NULL)
    {
        printf ("could not open file test.c");
        return 1;
    }
    printf ("Enter some text from keyboard to
            write in file")
    while (strlen (gets (data)) > 0)
    {
        F puts (data, FP);
    }
}
```

output :

60

opening the file test.c in write mode

Enter some text from keyboard to write  
in file test.c

Hi, How are you doing?  
~~Closing the file test.c~~

Prog : fscanf(), fprintf(), hello(), rewind()

```
#include <stdio.h>
int main()
{
    char name[20];
    int age, length;
    FILE *fp;
    fp = fopen ("text.txt", "w");
    fprintf(fp, "%s%d", "first.2 refresh", s);
    length = ftell(fp);
    rewind(fp);
    fscanf(fp, "%d", &age);
    fscanf(fp, "%s", &name);
    fclose(fp);
    printf("Name : %s age : %d\n", name, age);
    printf("Total number of characters in file %d", length);
}
return 0;
```

8  
03/03

Q3.

Output:

Name: Fresh 2 refresh

Age: 5

Total no of characters in file is 15