

Initialize length,
breadth, area



Enter value from
user



$$\text{Area} = l * b$$



Stop

Output :

Enter the number : 5 8.

The area is 40.

Practical - 01.

25

Aim :- Program to understand the basic datatypes and input / output.

Program 1 :- Area of Rectangle

```
→ # include < stdio.h >
# include < conio.h >
void main ()
{
    clrscr();
    int l, b, area;
    printf ("Enter the number : ");
    scanf ("%d %d", &l, &b);
    area = l * b;
    printf ("The area is %d", area);
```

Output
Explain
The

→ Program 2 :- Volume of Sphere
→ ~~# include < stdio.h >~~
~~# include < conio.h >~~
void main ()

{
 clrscr ();
 float r, v, f1;
 printf ("Enter the radius : ");
 scanf ("%f", &r);
 f1 = 3.14;
 v = 4.0 / 3.0 * f1 * r * r * r;
 printf ("The volume is : %.f", v);
 getch ();
}

→ Program 3 :- Avg of three 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);
 printf ("Avg : %.2f", avg);
 getch ();
}

Output :

Enter the radius : 7

The volume is : 1436.026733

Output :

Enter the number 5 52

$$\text{avg} = 4.00$$

~~37~~
Enter the value of Celsius : 3
Farenheit: 37.400002

Enter the Value : 80

Celsius : 26.666

Program 54 :- 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);
}
```

Program 5 :- Convert temperature from Fahrenheit to Celsius.

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

{

```
    clrscr();
    float c, f;
    printf("Enter the value of Fahrenheit:");
    scanf("%f", &f);
    c = (f - 32) * 5 / 9;
    getch();
```

Aim : Programs on operators & expression

Program 1 :-

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

```
void main ()
```

```
{
```

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

```
clrscr();
```

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

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

```
c = ++a - b;
```

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

```
printf ("\\n a = %d , b = %d , c = %d , d = %d
```

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

```
d = a / b;
```

```
printf ("\\n c = %d , d = %d ", c , d );
```

```
getch();
```

Output :

$$a = 25, b = 10$$

$$a = 26, b = 11, c = 16, d = 36$$

$$c = 4, d = 2$$

25

Output:

The value of $a = 8.0000$, $b = 15.0000$, $c = 3.0000$

The value of $x = 5.50000$, $y = 5.50000$, $z = 2.00000$

Program 2 :-

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

```
void main()
```

{

```
float a, b, c ;
```

```
a = 8 ;
```

```
b = 15 ;
```

```
c = 3 ;
```

```
printf ("n a = %.f , b = %.f , c = %.f , a, b, c);
```

```
x = (a - b) / (3 + c) * 2 - 1 ;
```

```
y = (a - b) / ((3 + c) * (2 - 1)) ;
```

```
z = a - (b / ((3 + c) * 2)) - 1 ;
```

```
printf ("n x = %.f , y = %.f , z = %.f , x, y, z);
```

```
getch();
```

3.

Q5

Program 3 :-

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

{

```
int a, b, c, ans;
clrscr();
a = 6; b = 4; c = 1;
ans = ++a * b + c; // c++
printf("%d, %d, %d, %d", a, b, c, ans);
getch();
```

}

Program 4 :-

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

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

```
void main()
```

{

```
int a, b, c, x;
clrscr();
x = 10;
a = x++;
b = -x;
c = x++ - -b;
printf("%d, %d, %d, %d", a, b, c, x);
getch();
```

.

Output :

30.

The value of $a = 7$, $b = 5$, $c = 1$
and $ans = 1$

Output:

The value of $a = 10$, $b = 9$, $c = 90$ and $x = 11$

10
9
90
11

Output

Enter the value of n : 12

12 is even.

Enter the value of n : 51

51 is odd

Program 1 :-

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

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

```
void main ()
```

```
{
```

```
clrscr();
```

```
int n,
```

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

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

```
m = n / 2
```

```
if (m == 0)
```

```
printf ("n n / 2 is odd ", n);
```

```
else
```

```
printf ("n n / 2 is even ", n);
```

```
getch();
```

```
}
```

Program 2 :-

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

```
{ clscsr();
int m;
printf("Enter the year ");
scanf("%d", &y);
m = y % 4;
if (m == 0)
    printf("In %d is a leap year", y);
else
    printf("It is not leap year");
getch(); }
```

Output :

Enter the year 2001

2001 is not a leap year.

Enter the year 2004.

~~2004 is a leap year.~~

~~82~~
Output :

Enter the alphabet : i

i is a vowel

Enter the alphabet : s

s is a consonant

Program 3 :-

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

{

```
    clrscr ()
```

```
    char ch,
```

```
    printf (" /n 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 (" /n .i.c is a vowel ", ch);
```

}

```
else :
```

```
    printf (" /n .i.c is a consonant ", ch);
```

```
getch ();
```

}

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Program 4:

```
#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("\n a is greater");
```

```
    else if ((b > a) && (b > c))
```

```
        printf("\n b is greater");
```

```
    else
```

```
        printf("\n c is greater");
```

```
    getch();
```

}

Output :

Enter 3 numbers : ?

7

1

b is greater

~~Output :~~

~~Enter single digit no : 1~~

~~One.~~

Program 5 :-

25

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int n;
    printf("Enter single digit decimal no: ");
    scanf("%d", &n);
    if (n == 0)
        printf("zero")
    else if (n == 1)
        printf("one")
    else if (n == 2)
        printf("two")
    else if (n == 3)
        printf("three")
    else if (n == 4)
        printf("four")
    else if (n == 5)
        printf("five")
    else
        printf("error")
    getch();
}
```

3

Program 7 :-

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

```
{ clrscr();
int a, b, choice;
printf("n * Select your choice ");
printf("1/n 1 Addition ");
printf("2/n 2 Subtraction ");
printf("3/n 3 Multiplication ");
printf("4/n 4 Division ");
printf("5/n 5 exit ");
scanf("%d %d", &a, &b);
if (choice >= 1 && choice <= 4)
```

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

```
switch (choice)
```

Case 1 :

$$m = a + b;$$

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

Output

30

Enter your choice

2.

Enter the value of a & b &

10

-2

Case :-
~~case~~
~~a = a + b;~~
~~printf("n", a);~~
~~break;~~

Case :-
~~case~~
~~a = a * b;~~

~~printf("n", a);~~
~~break;~~

Case :-
~~case~~

~~a = a / b;~~
~~printf("n", a);~~
~~break;~~

~~default;~~
~~printf("no operation");~~
~~break;~~

~~I getch();~~

~~}~~

Author

Practical - 4

Aim :- Program to understand looping statements

Program 1 :-

- Algorithm -
Step 1 Initialize a variable with datatype integer
Step 2 Use condition statement to print even numbers
Step 3 Initialize a variable upto the number we have to print.
Display the even numbers.

Code :-

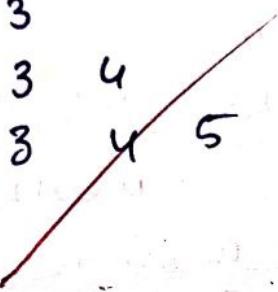
```
# include < stdio.h >
# include < conio.h >
void main()
{
    int i;
    clrscr();
    for (i = 2; i <= 20; i = i + 2)
    {
        printf ("%d\n", i);
    }
    getch();
}
```

Output :-

- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18
- 20

~~QUESTION~~
Output :-

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



Program -2:

3n

Algorithm :-

i) Initialize two variables.

ii) Store one variable equal to 2.

iii) use conditional statement, with less equal to 5.

iv) declare value one is another variable.

v) Use conditional statement for another variable which is less than equal to first variable.

vi) Display the value of another variable.

vii) Preincrement the value of another variable.

viii) Post increment the value of first variable.

Code :-

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

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

```
void main()
```

```
{
```

```
    int k, i, :
```

```
    clrscr();
```

```
    i = 1
```

```
    while (i <= 5)
```

```
{
```

```
    k = 1
```

```
    while (k <= i)
```

```
{
```

```
    printf("%d", k),
```

```
    ++k;
```

```
}
```

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

```
    i++;
```

```
}
```

```
    getch();
```

```
}
```

Program -3

Algorithm :-

- i) Initialize four variables.
- ii) Accept the value from user.
- iii) Initialize sum equal to zero.
- iv) Use conditional statement and that use the if statement.
- v) Then store the value in sum by adding.
- vi) Then increment the variable.
- vii) Then check condition of variable.
- viii) Print the sum of all numbers.
- ix) End.

Code :-

```
#include < stdio.h >
#include < conio.h >
void main()
{
    int i, n, sum, x;
    clrscr();
    printf("Enter value of n");
    scanf("%d", &n);
    i = 1;
    sum = 0;
    do
    {
        x = i * 2
        if (x == 1)
            sum = sum + i;
        i++;
    }
}
```

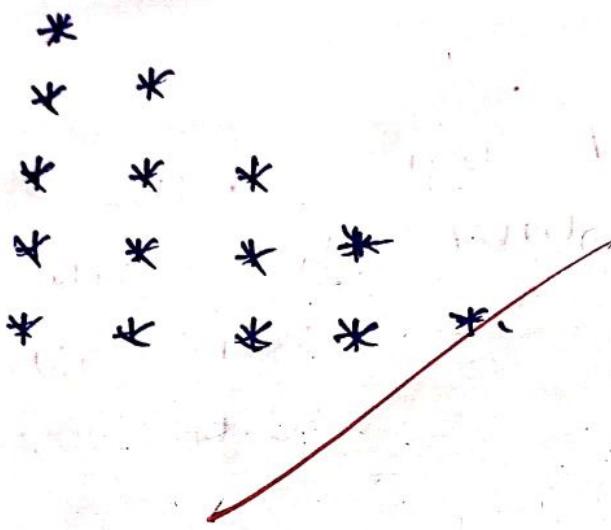
```
{ sum = sum + i;
}
while (i <= n);
printf("The sum");
getch();
```

Output :

Enter the value of n : 10

The sum of all odd numbers : 25

Output



Program 4 :-

Algorithm :-

- i) Initialize two variables.
- ii) Use nested conditional statement and check if it is less than 5 & increment it by 1.
- iii) In another condition check the value starts from 1 & less than equal to previous one.
- iv) print .

Code :-

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

Program 5 :

Algorithm

- i) Initialize four variables.
- ii) Initialize two variables with 1 and 0.
- iii) Print the value of second variable.
- iv) Use for condition statement and increment the value.
- v) Add two variables and store it on 3rd variable indicating fibonacci.
- vi) Print fibonacci series.
- vii) Swap the values.

Code :

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int a, b, f, i;
    clrscr();
    a = 1
    b = 0
    for (i = 3; i <= 20, i++)
    {
        f = a + b;
        printf("%d", f);
        a = b;
        b = f;
    }
    getch();
}
```

Output:

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

✓✓✓✓✓

Output

Enter the elements into array : 3

4

5

6

7

Enter array elements are : 3 4 5 6 7

Sum of elements is : 25

Practical - 05

Aim :- Program on arrays

42

Program 1 :-

```
#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("Sum of elements is: %d", sum);
    getch();
}
```

Q8

Program 2 :-

```
#include < stdio.h >
#include < conio.h >
void main()
{
    int i, num[10], l;
    clrscr();
    printf("nEnter 10 values in array : ");
    for (i=0; i<10, i++)
        scanf("%d", &num[i]);
    l = num[0];
    for (i=1; i<10, i++)
        l = num[i];
    for (i=1; i<10, i++)
        if (l < num[i])
            l = num[i];
    printf("n largest number is %d", l);
    getch();
}
```

Enter the value in array 2

4

5

6

8

9

0

10

11

13

~~target number is : 13~~

Output :

Enter the value into array :

-55

22

5

-3

4

11

16

-19

20

Positive

no.s = 5

Program - 3.

```
# include < stdio . h >
# include < conio . h >
void main ()
{
    clrscr();
    int i, num[10], p;
    printf (" Enter the values into the array ")
    for ( i = 0 ; i < 10, i++)
        scanf ("%d", & num[i])
    p = 0 ;
    for ( i = 1 , i < 10 , i++)
    {
        if ( num[i] > 0 )
        {
            p = p + 1
        }
    }
    printf (" No. of positive array present in given
array : %d );
}
getch();
```

Program 4.

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

Output

Enter the values in array.

2
3
4
5
6
7
8
9
10

No. of odd numbers in : 5

Output

Enter the value into array 2.

4

6

7

1

Sorted array 1 2 4 6 9.

Program - 05

```
# include < stdio.h >
# include < conio.h >
void main()
{
    clrscr();
    int i, j, num[5], t;
    printf("Enter the values into array : ");
    for (i = 0; i < 5, i++)
        scanf("%d", &num[i]);
    for (j = 0; j < 5, j++)
    {
        for (j = i + 1, j < 5; j++)
        {
            if (num[i] > num[j])
            {
                num[i] = num[j];
                num[j] = num[i];
            }
        }
    }
    printf("sorted array");
    printf("\n", num[i]);
}
getch();
```

50.

Program-06

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

Output

Enter elements of matrix x : 2

1
2
3
4
5
6
7
8

Enter elements of matrix y : 3

2
2
2
2
2
2
2
2

matrix

	12	10	10
27	24	24	
48	42	42	

```

    {
    {
        for (u=0; u<3; u++)
    }
    {
        for (c=0; c<3; c++)
    }
    t=0
    {
        for (k=0; k<3; k++)
    }
    t = t + r[r][k] * y[k][c];
    z[r][c] = t;
}
}

printf ("n matrix z");
for (u=0, u<3; u++)
{
    for (c=0; c<3; c++)
        printf ("%t * 1.0, z[r][c]);
    printf ("n");
}
getch();
}

```

10/25/2022

Pr

Practical - 06.

Aim :- Program to understand string manip.

Output

Program 1 :-

```
# include <stdio.h>
# include <conio.h>
void main()
{
    clrscr();
    char name[20]
    printf ("Enter your name");
    scanf ("%s", &name);
    printf ("\n my name is : %s", name);
    getch();
}
```

Enter
my name

Program 2 :-

```
# include <stdio.h>
# include <conio.h>
void main()
{
    char a;
    clrscr();
    printf ("Enter a character");
    a = getch();
    printf ("\n the character is : ");
    putchar (a);
    getch();
}
```

Output

Enter

the

Output :-

50

Enter your name : Mustafa.
my name is : mustafa.

Output :

Enter a character : a
the character is : a

Output

Enter a string : Bad boy.

the entered string is : Badboy.

Output :-

My name is

M
y
n
a
m
e.

Program 3 :-

```
#include <stdio.h>
#include <conio.h>
void main()
{
    char s[50];
    clrscr();
    printf ("Enter a string");
    gets(s);
    printf ("\n The entered string is:");
    puts(s);
    getch();
}
```

Program 4 :-

```
#include <stdio.h>
#include <conio.h>
void main()
{
    char name [10] = "my name is";
    clrscr();
    printf ("my name is :");
    for (int i=0; i<10; i++)
    {
        printf ("\n");
    }
}
```

13.

```
? putchar (name [i]);  
? getch ();  
? .
```

Program 5 :-

```
# include <stdio.h>  
# include <conio.h>  
void main()  
{  
    char str [10];  
    clrscr();  
    printf ("Enter a string: ");  
    scanf ("%s", &str);  
    show (str);  
    printf ("The reversed string is : %s", str);  
    getch();  
}
```

Output :-

Enter a String: Mustafa
The ~~unversed~~ string is : afatums.

8/25/2022

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Output:-

Enter the radius : 5

Area : 7.50000

circumference : 31.40000

Practical-07

54

Aim : Program on User defined functions.

Program 1 :-

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    circle();
    getch();
}

void circle (void)
{
    int r;
    float area, circum;
    printf ("Enter the radius");
    scanf ("%d", &r);
    area = 3.14 * r * r;
    circum = 2 * 3.14 * r;
    printf ("\n Area : %.f", area);
    printf ("\n Circumference : %.f", circum);
    getch();
}
```

Program 2 :-

```

#include < stdio.h >
#include < conio.h >
void main()
void sum(int n)
{
    clrscr();
    int n;
    printf("Enter a number");
    scanf("%d", &n);
    sum(n);
    getch();
}
void sum(int n)
{
    int m, s = 0;
    while (n != 0)
    {
        m = n % 10;
        s = s + m;
        n = n / 10;
    }
    printf("Sum of digits is %d", s);
    getch();
}

```

Output :-

59

Enter a number : 25

sum of digits is 7.

Output :-

Enter two numbers : 78 66

Sum of two numbers is : 144 .

55.

Program 3 :-

```
# include < stdio.h >
# include < conio.h >
void sum [ int n1 , int n2 ] ;
void main ()
{
    clrscr();
    int n1 , n2;
    printf (" Enter two number ");
    scanf ("% .1d % .1d" , &n1 , &n2);
}
```

Program 4 :-

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

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

```
void total (int m1, int m2, int m3, int m4);
```

```
void main ()
```

{

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

```
printf ("Enter four marks ");
```

```
scanf ("%d %d %d %d", &a, &b, &c, &d);
```

```
total (a, b, c, d);
```

```
getch();
```

}

```
void total (int m1, m2, m3, m4);
```

{

```
int total ;
```

```
total = m1 + m2 + m3 + m4;
```

```
printf ("\n The total is %.2f", tot);
```

```
average (tot) ;
```

}

```
void average (int tot)
```

{

```
float avg ;
```

```
avg = total
```

```
printf ("\n Average is %.2f", avg);
```

}

Output :

Enter four marks : 20

30

40

50

~~total~~ is 140

average is 35.0000

HC

Output :

Enter a number : 3

Factorial of 3 is 6 ::

Program 5 :

```

#include < stdio.h >
#include < conio.h >
int factorial (int n);
void main ()
{
    int fact;
    printf ("Enter a number");
    scanf ("%d", &x);
    fact = factorial (x);
    printf ("%n Factorial of %d is %d", x, fact);
    getch ();
}

int factorial (int n)
{
    int f;
    if (n == 1)
        return;
    use
    f = n * factorial (n - 1);
    return (f);
    getch ();
}
  
```

8/10²

Program 1 :-

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

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

{

```
int roll no ;
char name [20] ;
```

```
int total ;
```

{

```
void main()
```

{

```
struct student x;
```

```
clrscr();
```

```
printf ("Enter roll no : ");
```

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

```
printf ("Enter name: ");
```

```
scanf ("%s", x.name);
```

```
printf ("Enter total : ");
```

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

```
printf ("Student name : %s", x.name);
```

```
printf ("Roll no. %d", x.rollno);
```

```
getch();
```

{

Output:

Enter user no

Mustafa.

200

Roll no: 1822

Name : Mustafa

Total : 200.

58

: 1856

82

Output :

Enter eno and salary : 52000.

Enter eno and salary : 520000

both are unequal.

Program 2 :-

50

```
# include < stdio . h >
# include < conio . h >
{
    int eno, salary ;
}
void main ()
{
    struct employee n,y;
    printf ("Enter eno and salary ");
    scanf ("%d %d", &n.eno, &n.salary);
    printf ("Enter eno and salary : ");
    scanf ("%d %d", &y.eno, &y.salary);
    if (n.eno == y.eno & n.salary == y.salary)
    {
        printf ("both are equal")
    }
    else
        printf ("both are unequal")
    getch ();
}
```

Program 3 :-

```
#include <stdio.h>
#include <conio.h>
char name[20];
int price , qty , total;
void main()
{
    struct fruit f[5];
    int k;
    clrscr();
    printf("Enter name , price & qty");
    for( k=0 , k<5 ; k++)
    {
        scanf("%s %d %d" , &f[k].name , &f[k].price ,
        &f[k].qty );
    }
    f[k].total = f[k].price * f[k].qty;
    for( k=0 ; k<5 ; k++)
    {
        printf("%s name = %s , price = %d , qty = %d\n" ,
        getch();
```

Output :

Enter name	price	qty.
apple	20	5
mango	50	3
cherry	30	7.

~~name = apple, price = 20, qty = 5~~

~~name = mango, price = 50, qty = 3~~

~~name = cherry, price = 30, qty = 7.~~

Q3.

Output :

Enter records of two players

M.S Dhoni India 100

Viraj Sharma India 100

Teamwise	Player	Name
M.S Dhoni	India	100
Viraj Sharma	India	100

Program 4:

64

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

```
{ char Name[20], fname[20];
int average;
```

```
}
```

```
void main()
{
```

```
    cricket P[5]; t;
```

```
    int L, K, R;
```

```
    printf("Enter marks of two players :");
```

```
    for (i = 0; i < 5; i++)
        scanf("%d %d %d", &P[i].L, &P[i].R, &P[i].K);
```

```
    for (i = 0; i < 5; i++)
        P[i].average = (P[i].L + P[i].R + P[i].K) / 3;
```

```
}
```

```
getch();
```

Program 5 :-

```
#include <stdio.h>
#include <conio.h>
struct employee
{
    int salary;
    char name[10];
    struct employee b2;
};

void main()
{
    clrscr();
    int k;
    struct employee s = {56, "Mustafa", 320033}
    printf ("In Roll no = %d, %b name = %.5f
            Salary = %.2d, %s.id, s.name, s.b2);
}
```

Output:

Roll no.: 56

Name : Mustafa

Salary : 300.

1/25/04

Output

$$a=12$$

$$b=4$$

$$x=41$$

$$y=42$$

Practical -09.

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
    q=&b
    x = *p * *q - b;
    y = 4 * (*p-*q) + 10;
    printf("a=%d\n", a);
    printf("b=%d\n", b);
    printf("x=%d\n", x);
    printf("y=%d\n", y);
    getch();
}
```

~~NP~~
Program 2 :-

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

```
{
```

```
clrscr();  
int r[5] = {10, 20, 30, 40, 50};
```

```
int *p, i, sum = 0;
```

```
p = &r[0];  
for (i = 0; i < 5; i++)
```

```
{
```

```
    sum = sum + *p;  
    p = p + 1;
```

```
}
```

~~```
printf("%d\n", sum = 1.1, sum);
getch();
```~~

```
{
```

,

~~Output~~

~~Sum = 150~~

18

Output :-

$$x = 30$$

Program 3 :-

```
#include <stdio.h>
#include <conio.h>
void change(int * p);
void main()
{
```

```
clrscr();
int b = 20;
change(&b);
printf("n x = %d n", b);
 getch();
```

```
}
```

```
void change(int * p)
{
```

```
* p = *p + 10;
```

```
}
```

Program 4 :-

```
#include <stdio.h>
#include <conio.h>
void exchange (int *a, int *b);
void main ()
{
```

```
int x, y;
```

```
y = 20;
```

```
x = 10;
```

```
printf (" Before exchange x= %d, y= %d\n", x, y);
exchange (&x, &y);
printf (" After exchange x= %d, y= %d\n", x, y);
```

```
getch ();
```

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

```
int t;
```

```
t = *a;
```

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

```
* b = t;
```

```
}
```

Output :-

Before exchange

$$x=10, y=20$$

After exchange

~~$$x=20, y=10$$~~

~~10  
20~~

Output:

Opening the file test.c in write mode

Enter some text from keyboard to write in file

Hello?

closing the file test.c.

## Practical -10.

67

Aim: Programs on file handling.

Program 1 :-

```
#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("\n Enter some text from keyboard >0")~~

```
fputs(data, fp);
fputs("\n", fp);
printf("closing the file test.c");
fclose(fp);
return 0;
```

53.

## Program 2:-

```
#include <stdio.h>
#include <conio.h>
int main()
{
 char name[20];
 int age, length;
 FILE * fp;
 fp = fopen ("text.txt", "w");
 fprintf (fp, "%d", 15);
 length = feof(fp);
 rewind (fp);
 fscanf (fp, "%d", &age);
 fscanf (fp, "%s", &name);
 fclose (fp);
 printf ("Name : %s\n Age : %d\n", name, age);
 printf ("Total number of characters in file is %d", length);
 return 0;
}
```

Output

Name : Fresh refresh

age: 5

68

~~Total number of characters is 15~~

SD  
25/02