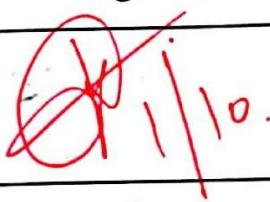
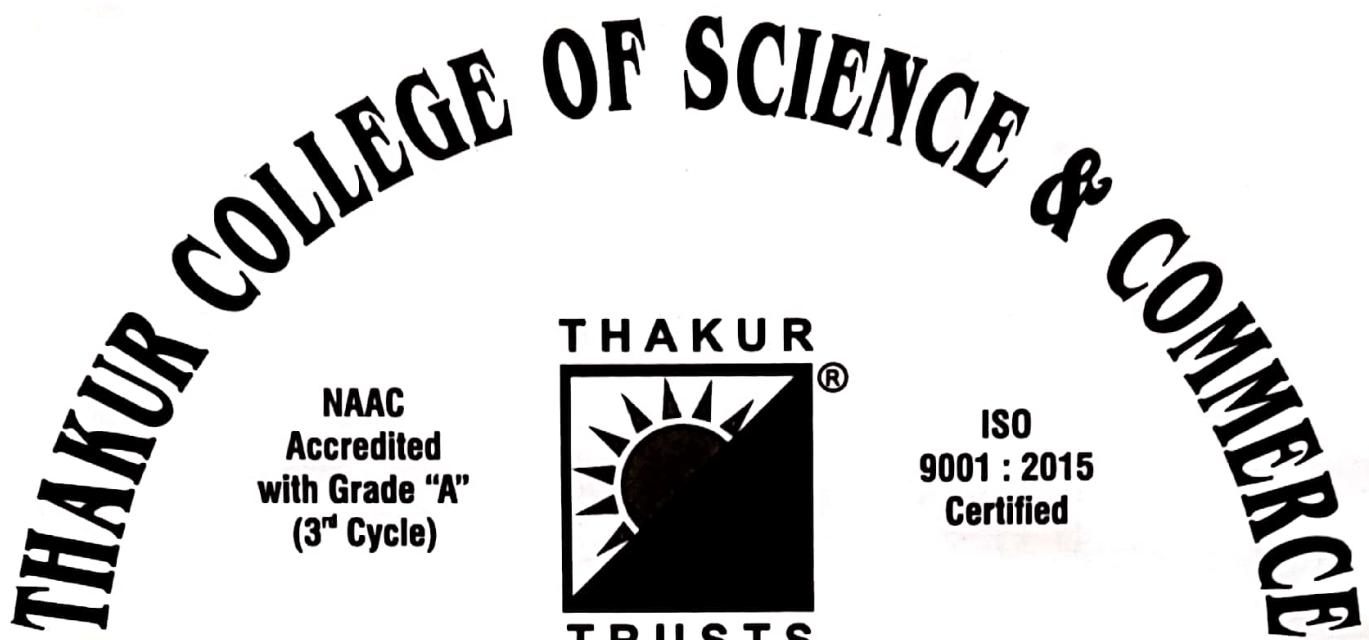


PERFORMANCE

Term	Remarks	Staff Member's Signature
I	On.	
II	Completed	



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9001 : 2015
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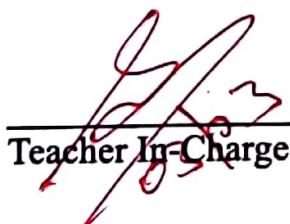
Degree College
Computer Journal
CERTIFICATE

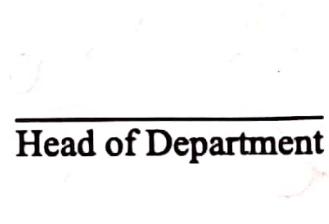
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This is to certify that the work entered in this journal
is the work of Mst. / Ms. Ashay Pradhan

who has worked for the year 2019-20 in the Computer
Laboratory.


Teacher In-Charge


Head of Department

Date : _____


Examiner

ही शेवा आता कार्यरत आहे.
मध्य सेप्ट देण्यासाठी आमच्या शाखा 19 ते 21 मार्च
तू एक तास लवकर सकाळी 08:30 पासून चुल होतील.
कांसाठी 19 ते 27 मार्च 2020 पासून आमची बैंकिंग
लाई 4:30 ते 5:30 पर्यंत वाढविण्यात आलेली आहे.

YES BANK

★ ★ INDEX ★ ★

No.	Title	Page No.	Date	Staff Member's Signature
1)	Programmes to understand basic datatypes & input / output	25	30/12/19	
2	Programs on operation & expressions -	28	10/12/19	
3	Programs on if else stmts	32	17/12/19	
4	Programs to understand looping statements.	36	7/1/20	
5	Programs on array	38	14/1/20	
6	Program to understand string manipulation	43	21/1/20	
7	Program with functions	45	4/2/20	<i>Eg</i>
8	Programs on structures	50	11/2/20	✓ 03/03
9	Programs on pointers	55	24/2/20	
10	Programs on file handling	59	25/2/20	



Shot on OnePlus
By Ashay

Output :-

Ans:-

Program 1

Enter the number (l) = 7

Enter the number (b) = 58

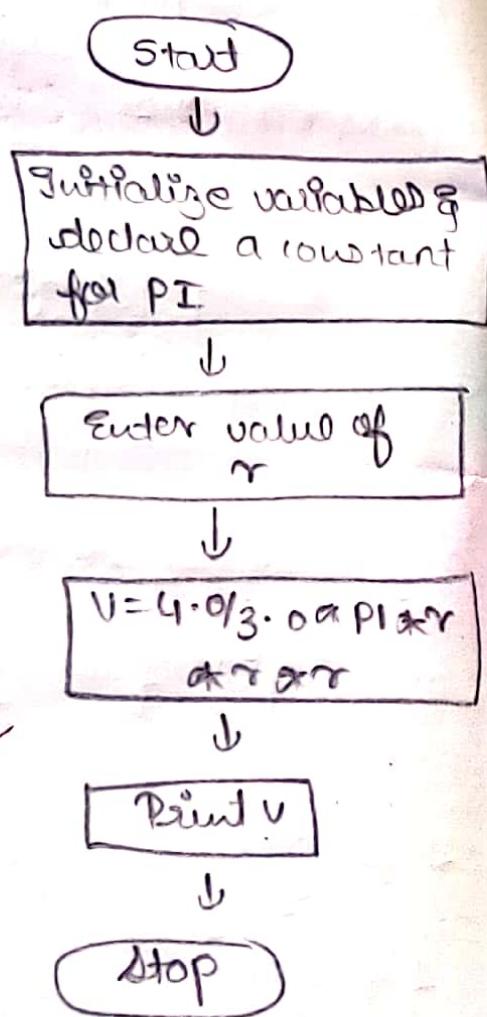
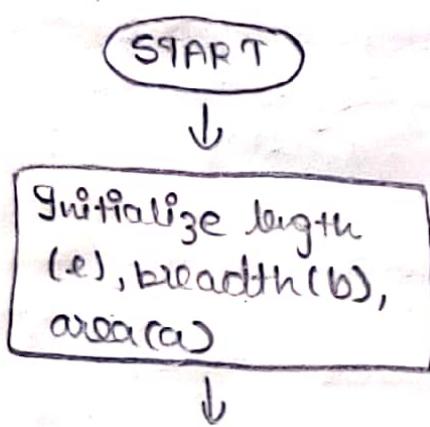
The area is 400

Program 2

Enter the radius : 7

The value is 1436.02673

PROGRAM - 1



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 = 4.0 / 3.0 * PI * 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 numbers:");
    scanf("%f %f %f", &a, &b, &c);
    avg = (a + b + c) / 3;
    printf("Avg: %f", avg);
    getch();
}
```

Program 4 :- Convert temperature from celsius to fahrenheit

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    float c, f;
    cout("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 <conio.h>
#include <stdio.h>
void main()
{
    clrscr();
    float c, f;
    cout("Enter the value of fahrenheit:");
    scanf("%f", &f);
    c = (5.0/9.0) * (f - 32);
    printf("Celsius: %f", c);
    getch();
}
```

Aim:- Programs on operators and expressions.

Programs 1

Algorithm

- 1) Initialize four variable with data type (int).
- 2) Clear the screen.
- 3) Store the values 5 in a & 10 in b.
- 4) Print the value of a & b.
- 5) Do the expression $c = ++a - b$.
- 6) Do one increment to b & add to a, store it in d.
- 7) Print the value of a, b, c, d.
- 8) Do $a \% b$ and store it in c.
- 9) Do a / b and store it in d.
- 10) Print the value of c and d.

Program :- 2.

Algorithm :

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

```
#include <stdio.h>
#include <conio.h>
void main()
{
    float a,b,c,x,y,z;
    a=8;
    b=15;
    c=3;
    printf ("In 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 ("In x=%f , y=%f , z=%f ", x,y,z);
    getch();
}
```

Output :-

```
a = 8.000000 , b = 15.000000 , c = 3.000000
x = 8.000000 , y = 5.500000 , z = 2.000000
```

28

Program-3

Algorithm :-

- 1) Initialize a,b,c,ans with data type integer.
- 2) Clear the screen.
- 3) Store the value in a=6, b=4, c=1
- 4) Perform expression $a \& b \& b \& c + 11 \& c + 3$ & store the value.
- 5) Print the value of a,b,c,ans.

Q8

```
#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 d, b=%d d, c=%d d, x=%d d", a,b,c);
    getch();
}
```

OUTPUT :-

a=10

b=9

c=90

x=11

19-1700

F=0

D=d

R=d

P=cab

Aim :- Program for decision making and branching

Program 1 :- check whether number is odd or even.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int n, r;
    printf ("Enter value of n:");
    scanf ("%d", &n);
    r = n % 2;
    if (r == 0)
        printf ("Entered is even", n);
    else
        printf ("Entered is odd", n);
    getch();
}
```

Output :-

Enter value of n : 12
12 is even

Enter value of n : 1
1 is odd

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

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

void main()
{
    clrscr();
    char ch;
    printf ("In 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 ("In %c is a vowel", ch);
    else
        printf ("In %c is a consonant", ch);
    getch();
}
```

Output :-

Enter the alphabet : i
i is a vowel

Enter the alphabet s

s is a consonant

Program 5:- Program to enter single digit decimal number from keyboard and print that digit in word form.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int n;
    printf("Enter single digit decimal no: ");
    scanf("%d", &n);
    if (n == 0)
        printf("In zero");
    else if (n == 1)
        printf("In one");
    else if (n == 2)
        printf("In two");
    else if (n == 3)
        printf("In three");
    else if (n == 4)
        printf("In four");
    else if (n == 5)
        printf("In five");
    else if (n == 6)
        printf("In six");
    else if (n == 7)
        printf("In seven");
```

Program 9:- Program to perform addition, subtraction, multiplication using switch case.

```
#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int a, b, c, choice;
    printf ("In Select your choice");
    printf ("1 n 1. Addition");
    printf ("1 n 2. Subtraction");
    printf ("1 n 3. Multiplication");
    printf ("1 n 4. Division");
    printf ("1 n S.Exit");
    scanf ("%d", &choice);
    if (choice >= 1 & & choice <= 4)
    {
        printf ("1 n Enter value of a and b:");
        scanf ("%d %d", &a, &b);
    }
    switch (choice)
    {
        CASE 1:
            c = a+b;
            printf ("1 n %d + %d = %d", a, b, c);
            break;
        CASE 2:
            c = a-b;
            printf ("1 n %d - %d = %d", a, b, c);
            break;
    }
}
```

Flame :- Program to understand looping statements

Program 1 :- Program to print even numbers from 1 to 100.

```
#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
```

PROGRAM :- 3

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i, n, sum, x;
    clrscr();
    printf ("Enter the value of n");
    scanf ("%d", &n);
    i = 1;
    sum = 0;
    do
    {
        x = 1 % 2;
        if (x == 1)
        {
            sum = sum + i;
        }
        i++;
    }
    while (i <= n);
    printf ("The sum of all odd no are %d", sum);
    getch();
}
```

OUTPUT :-

Enter the value of n 10
The sum of all odd no are 25

37

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();
}
```

OUTPUT :-

*		
*	*	
*	*	*
*	*	*
*	*	*

Ques:

PROGRAM :-

```
#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 ("In %d", f);
```

```
a = b;
```

```
b = f;
```

}

```
getch();
```

}

OUTPUT :-

1

1

144

2

233

3

377

5

610

8

987

13

1597

21

2584

34

53

62
63

PROGRAM-2: WAP inc to find the largest of the 10

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

PROGRAM - 45 WAP in C to find the odd numbers available in an array.

```
#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++;
    }
    printf("No. of odd numbers is %d", p);
    getch();
}
```

Output

Enter the values in the array

2 3 4 5 6 7 8 9

No. of odd numbers is 5.

OUTPUT

enter the value into array 2

4

6

9

1

Sorted array: 1 2 4 6 9

OUTPUT - [6]

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 (c=0; c<3; c++)
{
    scanf ("%d", &y[r][c]);
}
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 ("matrix z:\n");
for (r=0; r<3; r++)
{
    for (c=0; c<3; c++)
        printf ("%d", z[r][c]);
    printf ("\n");
}
getch();

```

```

for (x=0; x<3; x++)
{
    for (y = 0; y < 3; y++)
    {
        printf("1t %d", sum[x][y]);
    }
    printf("\n");
}
getch();

```

Output:-

Enter the elements of matrix u : 3

4
5
6
7
8
9
2
3

Enter the elements of matrix v : 2

3
4
5
6
7
8
9
10

~~Matrix sum:~~

5	7	9
11	13	15
17	11	3

Program 2 :- WAP in C to print the entered character.

```
#include <stdio.h>
#include <conio.h>
void main ()
{
    char a;
    clrscr();
    printf (" Enter a character: ");
    a = getch();
    printf ("The character is: %c", a);
    getch();
}
```

Output:-

Enter a character: a
The character is: a

Program 3 :- WAP in C to enter a string :-

```
#include <stdio.h>
#include <conio.h>
void main ()
{
    char a[30];
    clrscr();
    printf (" Enter a string: ");
    gets(a);
}
```

printf ("In The entered string is: ");
puts(s);

3

Output:-

Enter a string: ASH
The entered string is: ASH

Program 4 :- WAP in C to print the string in reversed order.

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

Output:-

My name is
w
y
n
a
m
e

Program 1 :- write a c program to calculate area and circumference of a circle.

```
#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 ("The area is %f", area);
    scanf ("%d", &r);
    printf ("The circumference = %f", circum);
    getch();
}
```

Output

Enter the radius: 5

Area: 78.50000

Circumference: 3.140000

```

Program 2: WAP in C to find the sum of digits of entered number.

#include <stdio.h>
#include <conio.h>
void main()
{
    clrscr();
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);
    sum(n);
    getch();
}

int sum(int n)
{
    int i, s = 0;
    while (n != 0)
    {
        i = n % 10;
        s = s + i;
        n = n / 10;
    }
    return s;
}

int main()
{
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);
    cout << "Sum of digits is " << sum(n) << endl;
    return 0;
}

```

OUTPUT

OUTPUT 46
Enter a number : 25
Sum of digit is: 7

PROGRAM - 3]

Q4

ANSWER

```
#include <stdio.h>
#include <conio.h>
void sum(int u1, int u2);
void main()
{
    clrscr();
    int u1, u2;
    printf("Enter two number:");
    scanf("%d %d", &u1, &u2);
    getch();
}

void sum(int u1, int u2)
{
    int a;
    a = u1 + u2;
    printf("Sum of two number is: %d", a);
    getch();
}
```

PROGRAM - 4

wap in C to calculate the total and average of 4 marks.

```
→ #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 ();
}

int a, b, c, d;
printf ("Enter four marks:");
scanf ("%d %d %d %d", &a, &b, &c, &d);
void total (int m1, int m2, int m3, int m4)
{
    int total;
    total = m1 + m2 + m3 + m4;
    printf ("The total is: %d", tot);
    average (tot);
}

void average (int tot)
{
    float avg;
    avg = tot / 4;
    printf ("The Average is %f", avg);
    getch ();
}
```


PRACTICAL - B

```
Program 1 : Student structure . . . . .  
#include < stdio.h > // student D define  
#include < conio.h > // for clrscr  
struct student  
{  
    int rollno;  
    char name[20];  
    int total;  
};  
void main()  
{  
    struct student x;  
    clrscr();  
    printf("Enter roll no:");  
    scanf("%d", &x.rollno);  
    printf("1n Enter name:");  
    scanf("%s", &x.name);  
    printf("1n Enter total:");  
    scanf("%d", &x.total);  
    printf("1n Student name : %s ", x.name);  
    printf("1n Roll no: %d ", x.rollno);  
    printf("1n Total : %d ", x.total);  
    getch();  
}
```

OUTPUT

```
Enter roll no: 1840  
Enter name: Raj  
Enter total: 86  
  
Student name : Raj  
roll no: 1840  
total: 86
```

Scanned with CamScanner

Program 2 Employee Comparison

104100

```
#include <stdio.h>
#include <conio.h>
struct employee
{
    int emno, salary;
};
void main()
{
    struct employee u, y;
    printf("In enter emno & salary:");
    scanf("%d %d", &u.emno, &u.salary);
    printf("In enter emno and salary:");
    scanf("%d %d", &y.emno, &y.salary);
    if (u.emno == y.emno & u.salary == y.salary)
    {
        printf("both are equal");
    }
    else
        printf("both are not equal");
    getch();
}
```

Practical-3 Fruits

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

OUTPUT :-

Enter name, price & qty: apple
45
56
banana
89
56

OUTPUT :-

Roll no :- 1852

Name :- Ashay

Salary :- 200

Program-5icketed and dream team

```

#include < stdio.h>
#include < conio.h>
#include < string.h>
struct ticket
{
    char pname[20], tname[20];
    int average;
};

void main()
{
    struct ticket p[5], t;
    int i, k, x;
    printf ("Enter records of 3 players:");
    for (i=0; i<4; i++)
    {
        scanf ("%s %s %d", &p[i].pname,
               &p[i].tname, &p[i].average);
    }
    for (k=i+1; k<5; k++)
    {
        x = strcmp (p[i].pname, p[k].pname);
        if (x>0)
            t = p[i];
        p[i] = p[k];
        p[k] = t;
    }
    printf ("Enter player names:");
    for (i=0; i<5; i++)
    {
    }
}

```

getch();
}

OUTPUT

Enter records of 3 players

Players	Score
MSD	100
Virat	100
Rohit	100

Enter player names

Players	Score
Team	100
India	100
India	100
Virat	100
Rohit	100

100

PRACTICAL - 9

Aim :- Programs on pointers

Program - 1

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

28.

Program :- 2

```
#include < stdio.h>
#include < conio.h>
void main()
{
    clrscr();
    int x[5] = { 10, 20, 30, 40, 50 };
    int * p, i, sum=0;
    p = &x[0];
    for (i=0 ; i<5 ; i++)
    {
        sum = sum + *p;
        p = p+1;
    }
    printf ("The sum = %d", sum);
    getch();
}
```

29. Output

I. S1 = 0
H = 1
S2 = 10
GP = P

Output

Sum = 150

56

1. S1 = 0
H = 1
S2 = 10
GP = P
2. S1 = 10
H = 2
S2 = 20
GP = P
3. S1 = 20
H = 3
S2 = 30
GP = P
4. S1 = 30
H = 4
S2 = 40
GP = P
5. S1 = 40
H = 5
S2 = 50
GP = P
6. S1 = 50
H = 6
S2 = 60
GP = P
7. S1 = 60
H = 7
S2 = 70
GP = P
8. S1 = 70
H = 8
S2 = 80
GP = P
9. S1 = 80
H = 9
S2 = 90
GP = P
10. S1 = 90
H = 10
S2 = 100
GP = P

Program-3 Pointers as function argument.

```
#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)
{
    *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 Before exchange x=%d y=%d", x, y);
    exchange (&x, &y);
    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;
}
```

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Aim :- Programs on file handling

Program 1 :- open file → write & close file.

```

#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 to write in file:");
    while (scanf("%s", data) > 0)
    {
        fputs(data, fp);
        fputs("\n", fp);
    }
    printf("closing the file test.c");
    fclose(fp);
    return 0;
}

```

Program - 2] fscanf(), fprintf(), fgetc(),
rewind() functions.

```
#include <stdio.h>
int main()
{
    char name[20];
    int age, length;
    FILE *fp;
    fp = fopen ("test.txt", "w");
    fprintf (fp, "%s %d", "fresh2refresh", s);
    length = fgetc (pp);
    rewind (pp);
    fscanf (fp, "%d", &age);
    fscanf (fp, "%s", &name);
    fclose (pp);
    printf ("Name: %s \n age: %d \n",
            name, age);
    printf ("Total no. of character in file
            is %d", length);
    return 0;
}
```