

Programming Practice

Program-1:

Write a program which print
"The department of computer science
& engineering".

```
* include <stdio.h>
* include <cmio.h>
int main()
```

```
{  
printf("1 Department Name: CSE \n");  
printf("2 course Name: CSE 1121 \n");  
printf("3 college Name: REC, RGN \n");  
printf("4 college code: 5476");}
```

Program-2:

Write a program to add with
two fixed 20, 30 integers numbers.

```
* include <stdio.h>
* include <cmio.h>
int main()
```

in a, b, c;

a = 20

b = 30

c = a + b

Point f (r-the result in: %.d" c);

 getchar();
}

B

* write a program to add
with three integer numbers.

* include <stdio.h>

* include <cmio.h>

int main()

{

in a, b, c, d;

printf("Enter the value of a,
scanf("%d %d %d", &a, &b, &c);

d = a+b+c;

printf("The result is %.d", d,

getchar();

}

Program 3:

Write a program to add, sub, mult, div. remainder with two integers numbers.

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int a, b, x, y, z, w, r;
    printf("Enter the value of a: ");
    scanf("%d", &a);
    printf("Enter the value of b: ");
    scanf("%d", &b);
    x = a + b;
    y = a - b;
    z = a * b;
    w = a / b;
    r = a % b;
    printf("Addition: %d", x);
    printf("Subtraction: %d", y);
    printf("Multiplication: %d", z);
    printf("Division: %d", w);
    printf("Remainder: %d", r);
```

$$\text{Area} = \frac{1}{2}(\text{Base} \times \text{Height})$$

$$= 0.5 \times (B \times h)$$

Program 4:

write a program to find out the area of triangle.

```

* include <stdio.h>
* include <conio.h>
int main()
{
    float base, height, area;
    printf("Base: ");
    scanf("%f", &base);
    printf("Height: ");
    scanf("%f", &height);
    area = .5 * (base * height);
    printf("area: %.2f", area);
    getch();
}

```

→(5) Write a program to find out the area of rectangle.

```

* include <stdio.h>
* include <conio.h>
int main()
{
    float length, width, area;
    printf("Length: ");
    scanf("%f", &length);
    printf("Width: ");
    scanf("%f", &width);
    area = length * width;
    printf("area: %.2f", area);
}

```

```
scanf("%f", & width);
area = length * width;
printf("area: %.f", area);
getchar();
}
```

Program: 6

write a program to find out the perimeter of rectangle

```
#include <stdio.h>
#include <conio.h>
int main()
{
    float length, width, perimeter;
    printf("length: ");
    scanf("%f", & length);
    printf("width: ");
    scanf("%f", & width);
    perimeter = 2 * (length + width);
    printf("area: %.f", area);
    getch();
}
```

Program:2:

Write a program to find out the area of a circle.

```
#include <stdio.h>
#include <cmio.h>
int main()
{
    float radius, area, pi;
    printf("radius: ");
    scanf("%f", &radius);
    area = PI * radius * radius;
    printf("area: %.2f", area);
    getch();
}
```

X #include <stdio.h>;

#include <cmio.h>

int main()

{

float radius

Program: 9

Write a program to find out the area of a cube.

```
* include <stdio.h>
```

```
* include <conio.h>
```

```
define PI: 3.1416
```

```
int main()
```

```
{
```

```
float PI, area;
```

```
printf ("PI: ");
```

```
scanf = 4 * PI * r * r;
```

Program:

Write a program to find out
the square root of a number

#include <stdio.h>

#include <conio.h>

int main()

{

float PI, volume;

printf("PI: ");

scanf("%f", &PI);

Volume = (4 * PI * PI * PI * PI) / 3;

printf("volume %.2f", Volume);

getchar();

}

#include <stdio.h>

#include <conio.h>

int main()

{

27.03.18

Series :-

Program-16 :

Write a program to find out
the sum of $1+2+3+4+\dots+n$

* include <stdio.h>

* include <conio.h>

int main ()

{

int n, i, sum=0;

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

scanf ("%d", &n);

for (i=1; i<=n; i++)

{

sum = sum + i;

}

printf ("%d", sum);

getchar();

}

Program: 12

write a program to find
out the sum of $1+3+5+7+9+\dots+n$

#include <stdio.h>

#include <conio.h>

int main()

{

int n, i, sum = 0;

printf("Enter the value of n");

scanf("%d", &n);

for (i = 1; i <= n; i++)

{

sum = sum + (2*i - 1);

}

printf("%d", sum);

getchar();

}

Program-18

Write a program to find out the sum of $2+4+6+8+\dots$

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int n, i, sum = 0;
    printf ("Enter the value of n: ");
    scanf ("%d", &n);
    for (i=1; i<=n; i++)
    {
        sum = sum + (2*i);
    }
    printf ("%d", sum);
    getch();
}
```

Program - 19.

Write a program to find out the sum of $5+10+15+20+\dots+n$.

& include <stdio.h>

& include <conio.h>

```
int main()
```

```
{
```

```
    int n, i, sum=0;
```

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

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

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

```
{
```

```
    sum = sum + (5*i);
```

```
}
```

```
    printf("\n%d", sum);
```

```
    getch();
```

```
Y.
```

Program-20

Write a program to find out the sum of $4+8+12+16+\dots+n$.

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int n, i, sum = 0;
    printf("Enter the value of n");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
    {
        sum = sum + (4 * i);
    }
    printf("%d", sum);
    getch();
}
```

Program-2

Write a program to find
out the sum of $1^2 + 2^2 + 3^2 + 4^2 + \dots + n^2$

```
& include <stdio.h>
& include <conio.h>
int main()
{
    int n, i, sum = 0;
    printf("Enter the value of n:");
    scanf("%d", &n);
    for (i=1; i<=n; i++)
    {
        sum = sum + (i*i);
    }
    printf("%d", sum);
    getch();
}
```

program-9

write a program for find out
the sum of $\frac{1}{1^2} + \frac{1}{2^2} + \dots + \frac{1}{n^2}$

```
#include <stdio.h>
#include <conio.h> sumsum(int)
int main()
{ int
```

$$\text{sum} = \text{sum} + (\frac{1}{i^2})$$

Program

Create a program to find out
the sum of $1 + 3 + 5 + 7 + \dots + n$.

$$\text{sum} = \text{sum} + (2*i - 1) * (2*i - 1),$$

Program 24

Write a program to find out
the sum of $2^2 + 4^2 + 6^2 + 8^2 + \dots + n^2$

Sol.

Program

Output

```
#include <stdio.h>
int main()
{
    int i, sum = 0;
    for (i = 1; i <= 10; i++)
    {
        sum = sum + (2 * i) * (2 * i);
    }
    printf("Sum = %d", sum);
}
```

sum = sum + (2*i)*(2*i);

program 25

write a program to find out
the positive or negative number

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int n;
    printf("Enter the value of n: ");
    scanf("%d", &n);
    if (n >= 0)
    {
        printf("The number is positive");
    }
    else
    {
        printf("The number is negative");
    }
    getch();
}
```

logic

num > 0 = pos

num < 0 = neg

Program 26: Write a program to find out even or odd number.

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

```
main
{
```

```
    int n;
```

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

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

```
    if (n%2 == 0)
```

```
{
```

```
        printf ("The number is even");
```

```
}
```

```
else
```

```
{
```

```
    printf ("The number is odd");
```

```
}
```

```
    getch();
```

```
};
```

logic

even = even

odd = false

if ($num \% 2 == 0$)

↑ even

if ($num \% 2 != 0$)

↑ odd

Q2. Write program to find out the
real or imaginary numbers.

logic

```
#include <stdio.h>
#include <math.h>
#include <math.h>
{
    int a,b,c,d;
    printf("a: ");
    scanf("%d", &a);
    printf("b: ");
    scanf("%d", &b);
    printf("c: ");
    scanf("%d", &c);

    d = b*b - 4*a*c;

    if (d ≥ 0)
    {
        printf("Root is ( real)"); // true
    }
    else
    {
        printf("Root is (imaginary)"); // false
    }
    getch();
}
```

Program: 2 Write a program to convert from farenheit to centigrade.

Soln

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

logic

$$\frac{c}{5} = \frac{f - 32}{9}$$

$$\Rightarrow F = \left(\frac{c}{5} \times 9 \right) + 32$$

28 Write a program to convert from centimeter to inch.

```
#include <stdio.h>
#include <conio.h>
int main ()
{
    float cm, in;
    printf ("Enter the value of in: ");
    scanf ("%f", &in);
    cm = (1 / 2.54);
    printf ("centimeter is: %f", cm);
    getch();
}
```

logic

$$1 \text{ inch} = 2.54 \text{ cm}$$

$$\Rightarrow 2.54 \text{ cm} = 1 \text{ inch}$$

$$1 \text{ cm} = \frac{1}{2.54}$$

29 Write a program to find out x^n

```
#include <stdio.h>
#include <conio.h>
int main()
{
    int x, n, results;
    printf ("Enter the value of x : ");
    scanf ("%d", &x);
    printf ("Enter the value of n : ");
    scanf ("%d", &n);
    results = row (x, n);
    printf ("Results = %d", results);
    getch();
}

Results = row (base, logic)  

          ↑  

          ↑
```

30

Write a program to accept the marks of 5 subject as input and find the percentage.

```
#include <stdio.h>
#include <conio.h>
#include <math.h>
int main()
{
    float s1, s2, s3, s4, s5, sum, percentage;
    int total = 500;
    printf ("Enter the value of 5 subjects");
    scanf ("%f %f %f %f %f", &s1, &s2, &s3,
           &s4, &s5);
    sum = s1 + s2 + s3 + s4 + s5;
    percentage = (sum * 100) / total;
    printf ("Percentage %.2f", percentage);
    getch();
}
```

31. Write program to structure & pay salary of a person.

logic T.a = Transport allowance

D.a = Day allowance

$$T.a = \text{basic} * 10 / 100$$

$$D.a = \text{basic} * 10 * 100$$

$$\text{Salary} = \text{ta} + \text{da} + \text{basic}$$

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

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

```
int main()
```

```
{ int basic, ta, da, total, salary;
```

```
printf ("Enter the value of basic : ");
```

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

$$ta = (\text{basic} * 10) / 100;$$

$$da = (\text{basic} * 10) * 100;$$

$$\text{total_salary} = \text{basic} + \text{ta} + \text{da}$$

```
printf ("Salary = %d", total, salary);
```

```
getchar();
```

```
}
```