

(1) Write a Program in C to 2 Number Entered by the user.

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int x, y, z;
    clrscr();
    printf (" Enter two Numbers ");
    scanf ("%d %d", &x, &y);
    z = x+y;
    printf (" Sum = %d ", z);
    getch();
}
```

(2) Write a Program to Define the Sum of 1st and last digit of four digit Number.

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int n, sum;
    clrscr();
    printf (" Enter 4 digit numbers ");
    scanf ("%d", &n);
    sum = n*1000 + n%10;
    printf (" Sum of 1st and last digit = %d ", sum);
    getch();
}
```

(4) Write a Program to find the
reverse of a five digit no.

```
#include <stdio.h>
#include <conio.h>
Void main ()
{
    long int n, rev;
    clrscr();
    printf (" enter a 5-digit no.");
    scanf ("%d", &n);
    rev = n % 10;
    n = n / 10;
    rev = rev * 10 + n % 10;
    n = n / 10;
    rev = rev * 10 + n % 10;
    n = n / 10;
    rev = rev * 10 + n % 10;
    n = n / 10;
    rev = rev * 10 + n % 10;
    printf (" Reverse no = %d", rev);
    getch();
}
```

(5) Write a Program to find the
Right most digit of integer part of a
fractional no. entered by the user

```

#include <stdio.h>
#include <conio.h>
Void Main()
{
    int n;
    float x;
    printf ("Enter a fractional no");
    scanf ("%f", &x);
    n = (int) x;
    x = x - n;
    printf (" Rightmost digit of Integer part = %d", n);
    getch();
}

```

(b) Write a program to find the simple interest for the Principle, Rate and time interested by the user.

```

#include <stdio.h>
#include <conio.h>
{
    int P;
    float r, t, Si;
    clrscr();
    printf (" Enter P, r and t");
    scanf ("%d %f %f", &P, &r, &t);
    Si = (P * r * t) / 100;
    printf (" Simple interest = %f", Si);
}

```

getch();

3

(7) Write a Program to find the Area, Perimeter of a Circle.

#include < stdio.h >

#include < conio.h >

Void main()

{

float r, a, P;

clrscr();

printf ("Enter radius ");

scanf ("%f", &r);

a = 3.14 * r * r;

P = 2 * 3.14 * r;

printf ("Area = %f ", a);

printf ("Perimeter = %f ", P);

getch();

3

(8) Write a Program to Interchange the value of two numbers.

a) using third Variable.

#include < stdio.h >

#include < conio.h >

Void main ()

{

int x, y, z;

clrscr();

printf ("Enter two numbers");

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

z = x;

x = y;

y = z;

printf ("After interchanging x = %d/n
y = %d", x, y);

getch();

}

b) without using third variable.

#include <stdio.h>

#include <conio.h>

Void main ()

{

int x, y;

clrscr();

printf ("Enter two numbers");

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

```
PointF ("x = 1.d /n y = 1.d", x, y);
```

```
x = x+y;
```

```
y = x-y;
```

```
x = x-y;
```

```
PointF ("After interchange x = 1.d /n y = 1.d",  
x, y);
```

```
getch();
```

```
}
```

- (9) Write a program to convert a
temp. given in Centigrade to Fahrenheit.

$$C = (F - 32) * 5 / 9.0$$

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

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

```
Void main()
```

```
{
```

```
float C, F;
```

```
scanf ("
```

```
PointF ("Enter the temp. in centigrade");
```

```
scanf ("%f", &C);
```

$$F = (C * 9 / 5) + 32;$$

```
PointF ("Temp. in F = %f", F);
```

```
getch();
```

```
}
```

(10) Write a program to find the larger number between two numbers entered by the user.

```
#include <stdio.h>
#include <conio.h>
Void main ()
{
    int x, y;
    clrscr();
    printf ("Enter two nos:");
    scanf ("%d %d", &x, &y);
    if (x > y)
        printf ("%d is largest", x);
    else
        printf ("%d is largest", y);
    getch();
}
```

(11) Write a program to check that a number is divisible by 3 and 5.

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

```
Point( "Enter a number" );
```

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

```
IF ( n%3 == 0 && n%5 == 0 ) ;
```

```
PointF( "%d is divisible by 3 and 5", n );
```

```
else
```

```
PointF( "%d is not divisible by 3 and 5", n );
```

```
getch();
```

```
}
```

(12) Write a program to check that a number is divisible by 3 or 5.

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

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

```
Void main ()
```

```
{
```

```
int n;
```

```
clrscr();
```

```
PointF( "Enter a number" );
```

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

```
IF ( n%3 == 0 || n%5 == 0 )
```

```
PointF( "%d is divisible by 3 or 5", n );
```

```
else
```

```
PointF( "%d is not divisible by 3 or 5", n );
```

```
getch();
```

```
}
```

(13) Write a Program to Show the use of Short hand Assignment operator.

```
#include <stdio.h>
#include <conio.h>
Void Main()
{
    int a = 20, j = 5;
    clrscr();
    a += j;
    printf ("n a = %d", a);
    a -= 10;
    printf ("n a = %d", a);
    a *= 3;
    printf ("n a = %d", a);

    a /= 10;
    printf ("n a = %d", a);

    a %= (j - z);
    printf ("n a = %d", a);
    getch();
}
```

(14) Write a Programme to Show the use of increment (++) and decrement Operator

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

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

```
Void main
```

```
{
```

```
int x = 10, y;
```

```
clrscr();
```

```
y = x++;
```

```
printf ("In x = %d | +y = %d", x, y);
```

```
y = ++x;
```

```
printf ("In x = %d | +y = %d", x, y);
```

```
y = --x;
```

```
printf ("In x = %d | +y = %d", x, y);
```

```
y = - -x;
```

```
printf ("In x = %d | +y = %d", x, y);
```

```
 getch();
```

```
}
```

(15)

Write a Program to find the difference between x and y. Using Conditional operator, where Values of x and y will be entered by user.

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

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

```
Void main
```

```
{
```

```
int x, y, d;  
clrscr();  
PointF ("Enter Value of x and y",  
ScanF ("%d%d", &x, &y);  
d = x > y ? x - y : y - x;
```

```
PointF ("Difference = %d", d);
```

```
getch();  
}
```

(1b) Write a Program to show the use of
bitwise logical operators.

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

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

```
Void main ()
```

```
{
```

```
unsigned int x = 35, y = 47, z;
```

```
clrscr();
```

```
z = x & y;
```

```
PointF ("x & y = %u", z);
```

```
z = x | y;
```

```
PointF ("x | y = %u", z);
```

```
z = x ^ y;
```

```
PointF ("x ^ y = %u", z);
```

```
z = x ^ y;
```

```
PointF ("x ^ y = %u", z);
```

```
getch();  
}
```

(18) Write a program to find the
i.s complement of a number entered by
the user, using bitwise complement operator.

unsigned

Range - 0 - 65535

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

Void main()

{

unsigned int n;

clrscr();

printf ("Enter a true no ");

scanf ("%d", &n);

printf ("Complement no = %d", ~n);

getch();

}

$$n = 20 = \text{unsigned}$$

$$\sim n = 65535 - n$$

$$= 65535 - 20 = 65515$$

$$\sim n = 1111111101011$$

$$\text{unsigned } n = 00000000010100$$

(19) Write a program to show the use of
bitwise shorthand Assignment operator.

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

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

Void main()

{

```
unsigned int x = 30, y = 72;
```

```
(10110010 ) ;
```

```
x &= y;
```

```
printf ("n = .0.4.", n);
```

```
x |= y;
```

```
printf ("Ln n = .0.4.", n);
```

```
x ^= y;
```

```
printf ("Ln x = .0.4.", x);
```

```
getch();
```

```
}
```

(20)

Write a Program to check that a number entered by the user each odd or even using bitwise operator.

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

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

```
Void main ()
```

```
{
```

```
unsigned int n;
```

```
clrscr ();
```

```
printf ("Enter a two no ");
```

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

```
if (n & 1)
```

```
printf ("%d is an odd no ", n);
```

```
else
```

```
Pointif ( "If y is an even no" , 2 );  
getch ( );  
3
```

- (21) Write a Program to Print the binary
equivalent of a no. entered by the user
using bitwise operator.

(22)

Write a Program to show the use of
comma (,) operator.

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

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

```
Void main ()
```

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

```
z = (x = 10, y = 15, x + y);
```

```
Pointf (" x = %.d \n y = %.d \n z = %.d ",
```

```
x, y, z);
```

```
getch ();
```

(23)

Write a Program to show the use of
Sizeof operator.

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

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

```
Void main ()
```

```
{
```

```
int x;
```

```
float y;
```

```
char z;
```

ND. size of

Size of int = sizeof(int);

```
Pointf (" Size of int = %.d ", sizeof(int));
```

```
Pointf (" \n Size of float = %.d ", sizeof(float));
```

```
Pointf (" \n Size of long int = %.d ", sizeof(long int));
```

```
Pointf (" \n Size of long double = %.d ", sizeof(long double));
```

Pointf ("In Size of char = 1.0 d", size of (char));

Pointf ("In Size of short int = 1.0 d", size of (short int));

Pointf ("In Size of si = 1.0 d", size of (si));

Pointf ("In Size of y = 1.0 d", size of (y));

Pointf ("In Size of z = 1.0 d", size of (z));

Pointf ("In Size of A = 1.0 d", size of ('A'));

Pointf ("In Size of 123 = 1.0 d", size of (123));

Pointf ("In Size of 12.45 = 1.0 d", size of (12.45));

getch();

Q4) Write a program to show the use of
Copy Operator.

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

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

```
Void Main()
```

```
{
```

```
    int x = 5, y = 2;
```

```
    float z;
```

```
    z = x/y;
```

```
Pointf ("z = %.F", z);
```

```
z = (float) y;
```

```
Pointf ("z = %.F", z);
```

```
z = (float)(y);
```

```
Pointf ("z = %.F", z);
```

```
getch();
```

(25) Write a program to show the use

of address and pointer variables.

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

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

```
Void Main ()
```

```
{
```

```
int a = 10, *y;
```

```
clrscr();
```

```
y = &a;
```

```
Pointf ("Value of a = %.d", a);
```

```
Pointf ("In Value of a = %.d", *y);
```

```
Pointf ("In Address of a = %.4", y);
```

```
Pointf ("In Address of a = %.4", &a);
```

```
getch();
```

```
}
```

Write a program to show the use

of parentheses operator.

```

#include <stdio.h>
#include <conio.h>
Void main()
{
    int x, y, z;
    float S;
    clrscr();
    printf("Enter three sides of triangle");
    scanf("%d%d%d", &x, &y, &z);
    S = (x+y+z)/2.0;
    printf("Semi Perimeter = %.2f", S);
    getch();
}

```

(27) Write a Program to Show the use of
array operator.

```

#include <stdio.h>
#include <conio.h>
Void main()
{
    int a[10], i;
    clrscr();
    printf("Enter 10 elements of array");
    scanf("%d", &a[0]);
    for (i=0, i<10, i++)

```

```

scanf( " %d", &q[i] );
printf( " Elements you entered are %d; " );
for( i=0, i<10, i++ ) {
    printf( " %d ", q[i] );
}
getch();
}

```

if = for space

(28) Write a program to show the use of member operator.

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

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

```
Struct Complex
```

```
{
```

```
int r1;
```

```
char y;
```

```
float z;
```

```
}
```

```
Void Main()
```

```
{
```

```
Struct Complex m, * Pto;
```

```
clrscr();
```

```
M.r1 = 10;
```

```
M.y = 'A';
```

```
M.z = 1.23;
```

```
Pto = &m;
```

```
Pointf( "Member r1 = %d", Pto->r1 );
```

`Pointf ("In Member y = %c", ptor->y);`

`Pointf ("In Member z = %F", ptor->z);`

`getch();`

`}`

- (29) Write a Program to find the absolute value of a num. entered by the user.

`#include <stdio.h>`

`#include <conio.h>`

`Void main`

`{`

`int x;`

`clrscr();`

`Pointf ("enter a no: ");`

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

`If (x < 0)`

`x = -1 * x`

`Pointf ("Absolute value of x = %d", x);`

`getch();`

`}`

- (30) Write a Program to check if an entered no. is odd or even.

```

    #include < stdio.h >
    #include < conio.h >
    void main()
    {
        int a1;
        printf (" entered any number");
        scanf ("%d", &a1);
        if (a1 % 2 == 0)
            printf (" even no");
        else
            printf (" Odd no");
        getch();
    }

```

(31) Write a Program to find the largest number among three no. entered by the user.

```

    #include < stdio.h >
    #include < conio.h >
    void main()
    {
        int a1, y, z;
        clrscr();
    }

```

PointF ("Enter three no");

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

if ($x > y$)

{
 if ($y > z$)

 PointF ("l.d is largest", x);

 else

 if ($x > z$)

 PointF ("l.d is largest", x);

 else

 }

 if ($y > z$)

 PointF ("l.d is largest", y);

 else

 if ($x > z$)

 PointF ("l.d is largest", x);

 else

 getch();

(32) Write a Program to check that a given year entered by the user is leap or not.

- a) using nested if else statement
- b) using logical operator.

a) #include <stdio.h>

#include <conio.h>

Void Main ()

{

int y;

PointIf ("Enter any Year");

Scanf ("%d", &y);

If ($y \% 100 == 0$)

If ($y \% 400 == 0$)

PointIf ("Leap Year");

else

PointIf ("not a leap year");

Else If

($y \% 4 == 0$)

PointIf ("Leap Year");

else

PointIf ("Not a leap year");

Getch();

3.

```
b) #include <stdio.h>
# include <conio.h>
Void main()
{
```

```
int y;
clrscr();
printf ("any year");
scanf ("%d", &y);
```

```
If (y % 4 == 0 && y % 100 != 0 || y % 400 == 0)
```

```
printf ("leap year");
```

```
else
```

```
printf ("not a leap year");
```

```
getch();
```

```
}
```

(33) Write a program to print the day of week, for entered code value of 1 to following table

1 - Sunday
2 - Monday
3 - Tuesday
4 - Wednesday
5 - Thursday
6 - Friday
7 - Saturday

```
#include <stdio.h>
#include <conio.h>
Void Main()
{
    int c;
    clrscr();
    printf("Enter any Code");
    scanf("%d", &c);

    If (c == 1)
        printf("Sunday");
    Else If (c == 2)
        printf("Monday");
    Else If (c == 3)
        printf("Tuesday");
    Else If (c == 4)
        printf("Wednesday");
    Else If (c == 5)
        printf("Thursday");
    Else If (c == 6)
        printf("Friday");
    Else If (c == 7)
        printf("Saturday");

    Else
        printf("Invalid Code entered");

    getch();
}
```

PointF ("Invalid code entered");
Getch();

3

- (35) Write a Program to find the largest no between two numbers using conditional operator

#include <stdio.h>

#include <conio.h>

Void main()

{

int a, b, c;

clrscr();

PointF ("enter two numbers");

Scanf ("%d %d", &a, &b);

~~if a > b~~

why? PointF ("a is greater"); ("b is greater");

getch();

3

- (36) Write a Program to find the largest no from three numbers entered by the user.

#include <stdio.h>

#include <conio.h>

Void main()

{

(38)

Write a Program to find the smallest no. between three numbers entered by the user.

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int x, y, z;
    clrscr();
    Poutf ("Enter three Number");
    Scrf ("odd odd odd", &x, &y, &z);
    x < y ? x < z ? ("odd is smallest", x) : Poutf ("odd is smallest", z) : y < z ? Poutf ("odd is smallest", y) : Poutf ("odd is smallest", z);
    getch();
}
```

3.

(39)

Write a Program to Check that a number is odd or even no. using conditional operator.

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int x;
    clrscr();
    Poutf ("Enter the number");
    Scrf ("odd", &x);
}
```

$87 \cdot 1 \cdot 2 = 17$? Pointf ("even no") : Pointf ("odd no");

getch();

3.

- (40) Write a Program to check the given year entered by the user is leap year or not using conditional operators

#include <stdio.h>

#include <conio.h>

Void main()

{ int y;

Pointf ("enter year");

Scanf ("%d", &y);

$y \% 100 == 0$? $y \% 4 == 0$? Pointf ("leap year");

Pointf ("not a leap year"); $y \% 400 == 0$?

Pointf ("leap year"); Pointf ("not a leap year");

getch();

3.

- (41) Write a Program to find the largest no. between four numbers using conditional operation.

```

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

Void main()
{
    int a, b, c, d;
    clrscr();
    printf (" enter four no ");
    scanf ("%d %d %d %d", &a, &b, &c, &d);
}

```

$a > b ? a > c ? a > d ? \text{printf} ("a is largest", a);$
 $\text{printf} ("a is largest", d); c > d ? \text{printf} ("c is largest", c);$
 $\text{printf} ("c is largest", d); b > c ? b > d ? \text{printf} ("b is largest", b);$
 $\text{printf} ("b is largest", d); c > d ? \text{printf} ("c is largest", c);$
 $\text{printf} ("c is largest", d);$

getch();

3

(42) Write a Program to Print the
Name of Colour for the code
entered by the user : as per formula
table with the help of Switch Case
Statement.

```

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

```

1 - Red
2 - Blue
3 - Yellow
4 - Pink
5 - Green

Void Main ()

default statement if
not exit if true then it
like: case 3
Case 2
Case 1

int Code;

Code = 1;

printf ("Enter code");

scanf ("%d", &Code);

Switch (Code)

{

Case 1 : printf ("Red");

Break;

Case 2 : printf ("Blue");

Break;

Case 3 : printf ("Yellow");

Break;

Case 4 : printf ("Pink");

Break;

Case 5 : printf ("Green");

Break;

default : printf ("Invalid Code");

getch();

3

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==

43

Write a Program to Print the day of week for the code entered by the user using Switch Case Statement.
the Code table is as follows:-

{	1 - Sunday
	2 - Monday
	3 - Tuesday
	4 - Wednesday
	5 - Thursday
	6 - Friday
	7 - Saturday

```
#include <stdio.h>
#include <conio.h>
Void main ()
{
    int code;
    clrscr();
    printf (" enter code");
    scanf ("%d", &code);
    switch (code)
    {
        Case 1: printf ("Sunday");
        Break;
        Case 2: printf ("Monday");
        Break;
    }
}
```

Case 3:- PointF ("Tuesday"); Break;

Case 4:- PointF ("Wednesday"); Break;

Case 5:- PointF ("Thursday"); Break;

Case 6:- PointF ("Friday"); Break;

Case 7:- PointF ("Saturday"); Break;

default:- PointF ("Invalid Code");

3

getch();

3

(44) W.A.P to Check that character entered by the user is special alphabet or

lowercase alphabet or digit or symbol (Special character).

a) Using else if ladder.

b) Switch Case

97
#include <stdio.h>

#include <conio.h>

Void main()

{

Character ch;

Colorbox();

```
PointIf ("Enter a character");  
Scanf ("%c", &ch);
```

If ($ch > 65 \text{ and } ch <= 90$)

```
PointIf ("Upper Case Alphabet");
```

```
else if (ch == 97 || ch == 122)
```

```
PointIf ("Lower Case Alphabet");
```

else

```
if (ch == 48 || ch == 57)
```

```
PointIf ("Digit");
```

else

```
PointIf ("Special Symbol");
```

```
getch();
```

}

b)

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

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

```
Void main()
```

E

```
char ch;
```

```
clrscr();
```

```
PointIf ("Enter a character");
```

```
Scanf ("%c", &ch);
```

```
Switch (ch)
```

E

Case'A':

```
PointIf ("Upper Case Alphabet");
```

use insert mode to copy

Case 'B':

Case 'C':

Case 'D':

Case 'Z': PointF ("Upper Case Alphabet");

Break;

Case 'A':

Case 'B':

— — —
→ →

Case 'Z': PointF ("Lower Case Alphabet");

Break;

Case '1':

Case '2':

← ←
— —

Case 'g':

Case '0': PointF ("Digit");

Break;

default:

PointF ("Special Symbol");

3

getch();

3.

(45) Write a Program to find the sum of 1st ten Natural nos. using while sum loop.

(46) Write a Program to find the sum of 5 digits nos. entered by the user

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int n, sum = 0;
```

```
clrscr();
Painif ("Enter a digit no.");
Scanf ("%d", &n);
```

```
while (n > 0)
```

```
{
```

```
    sum = sum + n % 10;
```

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

```
}
```

```
Painif ("Sum of digits = %d", sum);
```

```
3
```

```
getch();
```

```
3
```

(45)

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

```
#include <iostream.h>
```

```
Void main ()
```

```
{
```

```
int n=0;
```

```
clrscr();
```

```
i = 1;
```

```
while ( i <= 10 )
```

```
{
```

```
n = i + n;
```

```
i++;
```

```
3 PointF (" Sum of 10 natural no. is %d " n);
```

```
getch();
```

```
}
```

(46) Write a Program to find the L.C.M of two no. entered by the user. using for loop.

(47) Write a Program to find the H.C.F of two no. entered by the user. using for loop.

(48) Write a Program to find the factorial of a no. entered by the user. using for loop.

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

Void main()
{
    int i, n, y;
    clrscr();
    printf("Enter two no.");
    scanf("%d%d", &n, &y);
    for (i = 1; i <= n * y; i++)
        if (n % i == 0 && y % i == 0)
            break;
}
```

```
printf("L.C.M = %d", i);
getch();
```

(49) Write a program to find the n numbers entered by the user.

(50) W.A.P. to find the largest no. among ten no's entered by the user.

include < stdio.h>

include < iomanip.h>

Void main()

{

int n, sum = 0, ch;

clrscr();

printf ("Do you want to enter a no");

scanf ("%d", &ch);

while (ch == 'y' || ch == 'Y')

{

printf ("enter no");

scanf ("%d", &n);

sum = sum + n;

printf ("Do you want to enter

another no");

scanf ("%c", &ch);

}

printf ("Sum = %d", sum);

getch();

3

(47)

#include <stdio.h>

#include <conio.h>

Void main()

{

int i, h, a, y;

clrscr();

Pointf ("enter two no");

Scanf ("%d %d", &a, &y);

for (i=1, i<=a && i<=y, a++ i++)

if (a*i == 0 && y*i == 0)

h = i;

Pointf ("H.C.F = %d", h);

getch();

}

(48)

#include <stdio.h>

#include <conio.h>

Void main()

{

int n, i, f = 1;

clrscr();

Pointf ("enter a no");

Scanf ("%d", &n);

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

f = f*i;

Pointf ("%n factorial = %d", f);

getch();

}

(1)

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

#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 ("%d", i);

printf ("\n");

}

getch();

}

(2)

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

```

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

```

3 A
 3 B C
 3 D E F
 3 G H I J
 3 K L M N O

```

#include <stdio.h>
#include <conio.h>
Void main()
{
}

```

int i, j, n = 65;

clrscr();

for (i=1; i<=5; i++)

{

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

{

printf ("%c ", n++);

printf ("\n");

getch();

}

(4)

E

E D

E D C

E D C B

E D C B A

#include <stdio.h>

#include <conio.h>

Void Main()

{

int i, j;

clrscr();

for (i=5; i>=1; i++)

{

for (j=5 ; j>=i ; j--)

printf(" %c ", j+64);

printf("\n");

3

getch();

3

(5)

5

5 4

5 4 3

5 4 3 2

5 4 3 2 1

#include <stdio.h>

#include <conio.h>

Void main(),

{

int i, j;

clrscr();

for (i=5 ; i>=1 ; i--)

{

for (j=5 ; j>=1 ; j--)

printf("%c", i);

printf("\n");

3

fetch();

3

clutter all Rake it

all

5

clutter

8

17

24 25

25 26 27

25 26 27

clutter & glitter 17

clutter & glitter 18

glitter 19

glitter 20

glitter 21

glitter 22

Q → 8Bpages

6spans 1 2

4spans 1 2 3 4

2spans 1 2 3 4

1 2 3 4 5

8848848484

```

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

```

$i = 5$	{	5
$i = 4$	4	5
$i = 3$	3	4 5
$i = 2$	2	3 4 5
$i = 1$	1	2 3 4 5

```

#include < stdio.h>
#include < conio.h>
Void main()
{
}

```

int i, j; /* A loop is about to start */

clrscr(); /* Clearing screen */

for (i=5; i>=1; i--) /*

{

for (j=i; j<=5; j++) /*

Pointf ("%.d", j); /*

Pointf ("%n"); /*

3. /*

fetch(); /*

3 /*

0-

5

4 5

3 4 5

2 3 4 5

1 2 3 4 5

#include <stdio.h>

#include <conio.h>

Void Main()

{

int i, j; /*

clrscr(); /*

for (i=5; i>=1; i--) /*

{

```
for ( j = 1; j < i; j++ )  
    printf( " " );
```

```
for ( j = i; j <= 5; j++ )
```

```
    printf( ".%d", j );
```

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

3

```
getch();
```

3

0.

5

5 4

5 4 3

5 4 3 2

5 4 3 2 1

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

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

```
Void main()
```

{

```
int i, j;
```

```
clrscr();
```

for ($i = 5; i >= 1; i--$)

 {
 for ($j = 1; j < i; j++$)

 printf (" "));

 for ($j = 5; j >= 1; j--$)

 printf ("%d", j);

 printf ("\n");

 }

 fetch();

 }

0

1

2 1

3 2 1

4 3 2 1

5 4 3 2 1

#include <stdio.h>

#include <conio.h>

Void main()

{

int i, j;

clrscr();

for ($i=1; i<=5; i++$)

{

for ($j=1; j<=5-i; j++$)

printf (" ");

for ($j=i; j>=1; j--$)

printf ("%d", j);

printf ("\n");

}

getch();

}

0

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

#include <stdio.h>

#include <conio.h>

Void main()

{

int i, j, s=1;

clrscr();

for ($i=1; i<=5; i++$)

{

for (j=1; j <= 5-i; j++)

{ printf ("....."); }

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

printf ("%d", m++);

printf ("\n");

3

getch();

3

Q: Write a program to check that
given number is prime or not.

#include <stdio.h>

#include <conio.h>

Void main()

{

int n, i, p=1;

clrscr();

printf ("enter a no");

scanf ("%d", &n);

if (n%2 == 0 && n != 2)

p = 0;

else

for $j = 3$, $j * j <= n$; $j = j + 2$

$$\text{If } (n^o \cdot j^o = -o)$$

۲

$$p = 0;$$

~~break~~;

3

9F (P = -1)

P = 1)
Pointing ("good is pointing"),

Close

Pollutant ("of_w") is not a Pollutant);
getch();

3

9

18

~~A B C D E F G / 3 1 6 1 F E , C~~
~~F E D C B A~~

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A B C D E
A B C D E

A B C

A B

A

11

3314

18

Grafische Darstellung

E D C B A

E D C B A

D C B P

C B A

B F

A

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

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

```
Void main()
```

```
{
```

```
int i, j, x;
```

```
clrscr();
```

```
for ( i=1; i<=8; i++ )
```

```
{
```

```
x = 65;
```

```
for ( j=1; j<=9-i; j++ )
```

```
printf( "%c", x );
```

```
for ( j=1; j<=4+i-6; j++ )
```

```
printf( " " );
```

```
if ( i==1 )
```

```
n = n - 2;
```

```
else
```

```
while ( n!=65 )
```

```
printf( "%c", x );
```

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

```
3
```

```
 getch();
```

```
3
```

8 * * * *

* *

*

*

* * * * *

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int i, j, x;
    clrscr();
    for (i=1; i<=5; i++)
    {
        for (j=1; j<=5; j++)
            If (i == 1 || i == 5 || j == 1 ||
                j == 5)
                PointF ("* ", "spare", x++);
            Else
                PointF ("  ", "  ");
    }
    getch();
}
```

Q

* * * *

*

*

*

* * * *

*

*

*

* * * *

#include < stdio.h >

#include < conio.h >

Void main()

{

int i, j, n;

clrscr();

for (i=1; i<=9; i++)

{

for (j=1; j<=5; j++)

if (i==1 || i==5 || i==9 ||

i<5 && j==1 || i>5 &&

printf ("*"), n++); j=-5)

else

printf (" ");

printf ("\n");

return 0;

(1) Write a program to print all the numbers from by the combination of 1, 2 and 3.

(2) Write a Program to print all the numbers from by the combination of 1, 2 and 3 without repeating any digit.

Write a program to print all the prime numbers from 1 to 500.

Write a program to print all the Armstrong numbers from 1 to 1000

Write a program to print LCM and HCF of three no. entered by the user

Write a program to print a no in words.

(1)

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

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

```
Void main()
```

```
{
```

```
int i, j, k;
```

```
for (i=1; i<=3; i++)
```

```
for (j=1; j<=3; j++)
```

```
for (k=1; k<=3; k++)
```

```
printf ("%d%d%d", i, j, k);
```

```
getch();
```

```
}
```

(2)

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

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

```
Void main()
```

```
{
```

```
int i, j, k;
```

```
for (i=1; i<=3; i++)
```

```
for (j=1; j<=3; j++)
```

```
-for (k=1; k<=3; k++)
```

```
if (i=j && j!=k && i!=k)
```

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

```
getch();
```

Ques

(5) #include <stdio.h>
#include <conio.h>
Void main()
{

int i, a, b, c;

printf ("Enter three no ");

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

for (i = 1; i <= a+b+c; i++)

if (a % i == 0 && b % i == 0 && c % i == 0)

break;

printf ("L.C.M = %d", i);

getch();

}

#include <stdio.h>

#include <conio.h>

Void main()

{

int i, sum, a, n;

clrscr();

for (i = 1; i <= 1000; i++)

{

n = i;

sum = 0;

while (n > 0)

{

$q = n / 10;$

$sum = sum + (q * q * q);$

$n = n / 10;$

}

if ($sum == i$)

printf ("1 n = %d", i)

3

getch();

3

Write a Program to check that
a number entered by the user
is power of 2 or not using
bitwise operator

#include < stdio.h >

#include < conio.h >

Void main()

{

int n;

Printf ("Enter a number");

Scanf ("%d", &n);

if ($n != 0 \&& (n \& (n - 1)) == 0$)

printf ("Power of 2");

else

printf ("not Power of 2");

getch();

3

$$\begin{aligned}
 1 &= 1 \\
 2 &= 10 \\
 4 &= 100 \\
 8 &= \overbrace{100}^{16 \text{ bits}} \\
 16 &= \overbrace{100}^{16 \text{ bits}} 0
 \end{aligned}$$

$$18 - 1 = 17 = 10001$$

$$n^{\frac{1}{2}} / (n-1) \geq 10000 \Rightarrow n = 16$$

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

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

```
Void main ()
```

```
{
```

```
int n, p, i;
```

```
clrscr();
```

Printf (" Prime nos from 1 to 500 are ");

```
for (n=1; n<=500; n++)
```

```
{
```

```
P=1;
```

If ($n \cdot 2 = 0 \text{ and } n \neq 2$)

```
P=0;
```

Else for ($i=3; i * i \leq n; i = i + 2$)

if ($n \cdot i = 0$)

```
{
```

```
p=0;
```

```
break;
```

```
}
```

If ($p = 1$)

printf ("%d is prime", n);

```
getch();
```

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

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

```
Void main()
```

```
{  
    int i, q, b, c, h;  
    clrscr();  
    printf ("enter three nos");  
    scanf ("%d %d %d", &q, &b, &c);  
    for (i=1; i<=q+b+c; i++)  
        if ((i%q==0) && (i%b==0) &&  
            (i%c==0))  
            break;  
    printf ("lcm = %d", i);  
    for (i=1; i<=q+b+c; i++)  
        if ((q%i==0) && (b%i==0) &&  
            (c%i==0))  
            h=i;  
    printf ("\n HCF = %d", h);  
    getch();  
}
```

O

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

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

```
Void main ()
```

```
{
```

```
long int n, n1, d=1;
```

```
clrscr();
```

```
PutStr ("Please enter a number");
```

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

```
n1 = n;
```

```
while (n1 > 0)
```

```
{
```

```
d = d * 10;
```

```
n1 = n1 / 10;
```

```
3
```

```
PutStr ("The no in words");
```

```
while (n > 0)
```

```
{
```

```
Switch (n/d)
```

```
{
```

```
Case 1 : PutStr ("One ");
```

```
break;
```

```
Case 2 : PutStr ("Two ");
```

```
break;
```

Case 3: printf ("Three");
break;

Case 4: printf ("four");
break;

Case 5: printf ("five");
break;

Case 6: printf ("Six");
break;

Case 7: printf ("Seven");
break;

Case 8: printf ("Eight");
break;

Case 9: printf ("Nine");
break;

Case 0: printf ("Zero");
break;

$$n = n / d;$$

$$d = d / n;$$

3

getch();

3

Write a program to find the square root of numbers entered by the user with following facilities.

- 1) If +ve no is entered Square root is displayed
- 2) If -ve no is entered Proper message is displayed.
- 3) If 0 is entered Program terminates.

Write the above program with the help of a) break & continue statement
b) using go to statement

#include < stdio.h >

#include < conio.h >

#include < math.h >

Void main()

{

int n;

float Sq;

clrscr();

while(1)

{

printf("Enter a number");

scanf("%d", &n);

If (n<0)

{

printf("Negative no square

root can not be calculated");

Continue:

Else if ($n == 0$)

{

printf ("Bye bye--");
break;

Sq = sqrt (n);

printf ("Square root of %d = %f", n, Sq);

3

getch();

3

b)

#include <stdio.h>

#include <conio.h>

#include <math.h>

Void main()

{

int n;

float Sq;

clrscr();

INPUT:

printf ("Enter a number: ");

scanf ("%d", &n);

If ($n < 0$)

Printf (" Negative no. Square root
Can not be Calculated ");

goto INPUT;

3

if ($n == 0$)

 goto END;

$Sq = \text{Sqrt}(n);$

Printf (" In Square root of %d = %.F ",
 $n, Sq);$

goto INPUT;

END:

Printf (" Bye Bye -- ");

getch();

3

(1) Write a Program to find all
Prime factors of a no. entered
by the user.

(2) Write a Program to find a^b .

Value of a and b is entered
by the user.

(3) Write a Program to multiply two no
without using multiplication operator

1. 3c
2.
3.

#include <stdio.h>

(1)

#include <conio.h>

Void main()

{

int n, i=2;

clrscr();

printf ("Enter a number");

scanf ("%d", &n);

while (n>1) printf ("Prime factors are : ");

{

if (n%i==0)

{

printf ("%d", i);

}

else

i++;

3

getch();

3

(4) Write a program to print the following factors.

1

2 2

3 3 3

4 4 4 4

5 5 5 5 5

(5)

8 square 1

6SP 1 2 1

4SP 1 2 3 2 1

2SP 1 2 3 4 3 2 1

1 2 3 4 5 4 3 2 1

(6)

Write a program to print all ASCII characters with their ASCII values.

(7)

Write a program to find the binary or octal equivalent of a decimal no. entered by the user

(8) write a Program to Print
the octal and hexadecimal equivalent
using pure define format.

(9) write a Program to Print
Squares and Cube of first n
natural no.

(10) write a Program to find the
largest, smallest, average of n
numbers entered by the user sum

(11) write a program to print Fibonacci Series
of n terms.

(12) write a Program to Print terms
of febonacci series with largest
term not greater than 100.

Return Function :-

(4)

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

(2)

```
#include <stdio.h>
#include <conio.h>
Void main()
{
    int a, b, c=1, i;
    clrscr();
    printf (" Enter two no:");
    scanf ("%d %d", &a, &b);
    for (i=1; i<=b; i++)
        c = c * a;
    printf (" Prod of %d", a, b, c);
    getch();
}
```

Q01,

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

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

```
Void main()
```

```
{
```

```
int a, b, i;
```

```
float c=1.0;
```

```
clrscr();
```

```
printf (" enter two no");
```

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

```
if (b>0)
```

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

```
c=c*a;
```

```
else
```

```
for (i=-1; i>b; i--)
```

```
c=c/a;
```

```
printf (" power of %d ^ %d = %f",
```

```
a, b, c);
```

```
 getch();
```

```
}
```

(3)

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

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

```
Void main()
```

```
{
```

int a, b, p = 0;

clrscr();

printf (" enter two no");

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

for (j=1; j<=b; j++)

p = p + a;

printf (" product = %d", p);

getch();

(5)

#include <stdio.h>

#include <conio.h>

Void main()

int i, j;

clrscr();

for (j=1; j<=5; j++)

E

for (j=1; j<=5; j++)

printf (" ");

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

printf ("%d", j);

j = j - 2;

while (j >= 1)

printf ("%d", j--);

printf ("\n");

3

getch();

3

(6)

#include <stdio.h>

#include <conio.h>

Void main()

{

int i=0;

clrscr();

while (i<256)

{

Pointf ("1 + %d. %d = %d.c", i, i);

i++;

3

getch();

3

(7)

#include <stdio.h>

(8)

#include <conio.h>

Void main()

{

int n, m;

long int bin=0, oct=0, m=1;

clrscr();

Pointf ("Enter a number");

Scanf ("%d", &n);

n1 = n;

while (n1 > 0)

{

bin = bin + m * (n1 % 2);

n1 = n1 / 2;

m = m * 10;

}

Pointf ("In Binary equivalent = %d", bin);

n1 = n;

m = 1;

while (n1 > 0)

{

oct = oct + m * (n1 % 8);

n1 = n1 / 8;

m = m * 10;

}

Pointf ("In Octal equivalent = %d", oct);

Pointf ("In Hexadecimal equivalent using format = %X", n);

Pointf ("In Hexadecimal equivalent = %x", n);

getch();

3

(9)

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

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

```
Void main()
```

```
{
```

```
int n, i;
```

```
clrscr();
```

```
printf ("Enter limit");
```

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

```
printf ("No. Square Cube");
```

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

```
printf ("%d %d %d %d", i, i*i,
```

```
i*i*i);
```

```
getch();
```

```
}
```

(10)

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

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

```
Void main()
```

```
{
```

```
int n, i, sum=0, no;
```

```
float avg;
```

```
printf ("How many no. you want to  
enter");
```

scanf("%d", &n);

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

{

printf("Enter no");

scanf("%d", &no);

if (i == 1)

s = no;

else if (no < s)

s = no;

else if (no > s)

i = no;

Sum = Sum + no;

}

Avg = (float) Sum / n;

printf("In sum of nos %d", Sum);

printf("In average = %.2f", Avg);

printf("In largest = %d", i);

printf("In smallest = %d", s);

getch();

3

$$\begin{array}{c}
 0+1=1, 1+1=2, 1+2=3, 2+3=5 \\
 \textcircled{0} \textcircled{1} \textcircled{1} \textcircled{2} \textcircled{3} \textcircled{5} \textcircled{8} \dots \\
 \frac{0}{1}, \frac{1}{1}, \frac{1}{2}, \frac{2}{3}, \frac{3}{5}, \frac{5}{8}, \dots
 \end{array}
 \quad \text{Fibonacci Series}$$

(11)

#include <stdio.h>

#include <conio.h>

Void main()

{

int n, i, t₁ = 0, t₂ = 1, t₃;

clrscr();

printf("How many terms");

scanf("%d", &n);

printf("The fibonacci series");

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

{

if (i == 1)

printf("1 + 0 = ");

else if (i == 2)

printf("1 + 1 = ");

else

{

t₃ = t₁ + t₂;

printf("1 + 1 = ");

t₁ = t₂;

t₂ = t₃;

}

3

getch();

3

(12)

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

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

```
Void main()
```

{

```
int n, i, t1 = 0, t2 = 1, t3;
```

```
clrscr();
```

```
printf("the Series is ");
```

```
t3 = t1 + t2;
```

```
printf("%d %d", t1, t2);
```

```
while (t3 <= 100)
```

{

```
printf("%d", t3);
```

```
t1 = t2;
```

```
t2 = t3;
```

```
t3 = t1 + t2;
```

}

```
getch();
```

3