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Question 1: Write a program to print “Hello World”.

Coding:-

```
// Program to print "Hello World"

#include<stdio.h>

#include<conio.h>

void main()

{

    clrscr();

    printf("Hello World");

    getch();

}
```

Output:-

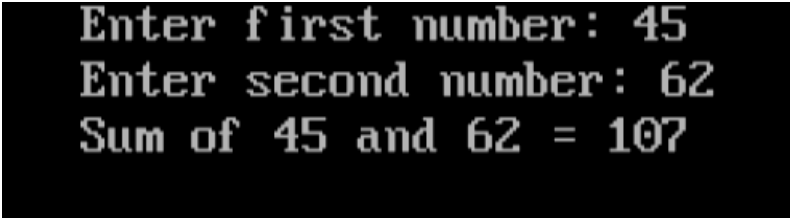
A screenshot of a terminal window with a black background. The text "Hello World_" is displayed in a light blue or cyan monospaced font. The text is positioned in the upper left area of the terminal, and a cursor is visible at the end of the line, represented by a small vertical line.

Question 2: Write a program to find sum of two numbers.

Coding:-

```
//Program to find sum of two numbers
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2,sum;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&n1);
    printf("Enter second number: ");
    scanf("%d",&n2);
    sum=n1+n2;
    printf("Sum of %d and %d = %d",n1,n2,sum);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It shows the output of the program: 'Enter first number: 45', 'Enter second number: 62', and 'Sum of 45 and 62 = 107'.

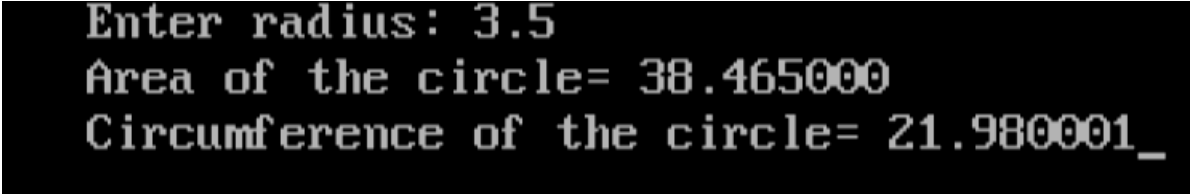
```
Enter first number: 45
Enter second number: 62
Sum of 45 and 62 = 107
```

Question 3: Write a program to find area and circumference of circle.

Coding:-

```
//Program to find area and circumference of circle
#include<stdio.h>
#include<conio.h>
void main()
{
    float pi,r,area,cir;
    clrscr();
    pi=3.14;
    printf("Enter radius: ");
    scanf("%f",&r);
    area=pi*r*r;
    cir=2*pi*r;
    printf("Area of the circle= %f\n",area);
    printf("Circumference of the circle= %f",cir);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and green text. It shows the output of the C program: 'Enter radius: 3.5', 'Area of the circle= 38.465000', and 'Circumference of the circle= 21.980001_'.

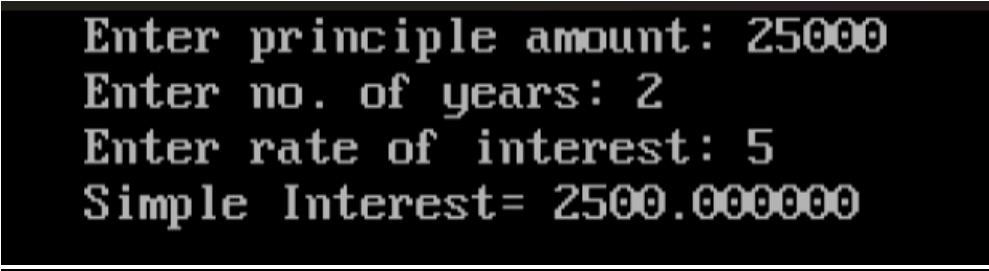
```
Enter radius: 3.5
Area of the circle= 38.465000
Circumference of the circle= 21.980001_
```

Question 4: Write a program to find the simple interest.

Coding:-

```
//Program to find the simple interest
#include<stdio.h>
#include<conio.h>
void main()
{
    float p,n,r,SI;
    clrscr();
    printf("Enter principle amount: ");
    scanf("%f",&p);
    printf("Enter no. of years: ");
    scanf("%f",&n);
    printf("Enter rate of interest: ");
    scanf("%f",&r);
    SI=(p*n*r)/100;
    printf("Simple Interest= %f",SI);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It shows the output of the simple interest program. The text is as follows:

```
Enter principle amount: 25000
Enter no. of years: 2
Enter rate of interest: 5
Simple Interest= 2500.000000
```

Question 5: Write a program to convert temperature from degree centigrade to Fahrenheit.

Coding:-

```
//Program for conversion of temperature
#include<stdio.h>
#include<conio.h>
void main()
{
    float temp,conv;
    clrscr();
    printf("Enter temperature in degree Centigrade: ");
    scanf("%f",&temp);
    conv=(temp*1.8)+32;
    printf("%f degree celcius in fahrenheit= %f",temp,conv);
    getch();
}
```

Output:-

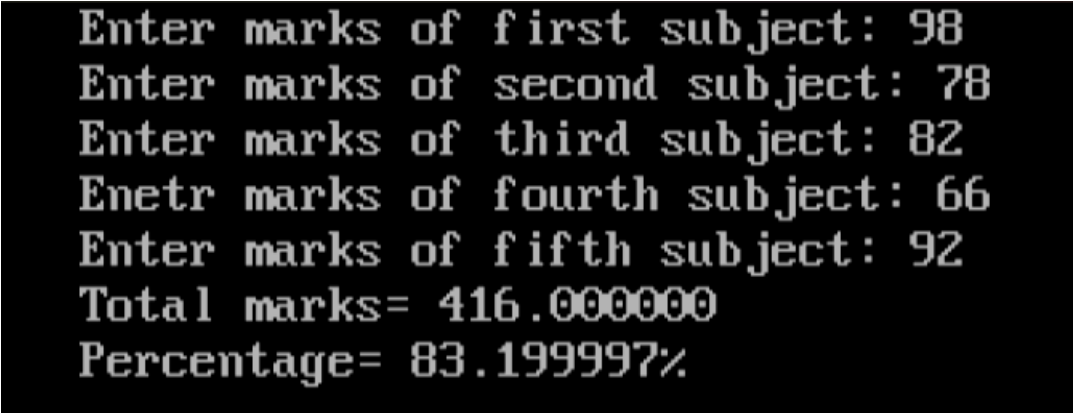
```
Enter temperature in degree Centigrade: 98
98.000000 degree celcius in fahrenheit= 208.399994
```

Question 6: Write a program to calculate sum of 5 subjects and find percentage.

Coding:-

```
//Program to print the marksheet of a student
#include<stdio.h>
#include<conio.h>
void main()
{
    float m1,m2,m3,m4,m5,total,per;
    clrscr();
    printf("Enter marks of first subject: ");
    scanf("%f",&m1);
    printf("Enter marks of second subject: ");
    scanf("%f",&m2);
    printf("Enter marks of third subject: ");
    scanf("%f",&m3);
    printf("Enetr marks of fourth subject: ");
    scanf("%f",&m4);
    printf("Enter marks of fifth subject: ");
    scanf("%f",&m5);
    total=m1+m2+m3+m4+m5;
    per=total/5;
    printf("Total marks= %f\n",total);
    printf("Percentage= %f%",per);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It shows the output of the C program. The prompts and user inputs are as follows:
Enter marks of first subject: 98
Enter marks of second subject: 78
Enter marks of third subject: 82
Enetr marks of fourth subject: 66
Enter marks of fifth subject: 92
Total marks= 416.000000
Percentage= 83.199997%

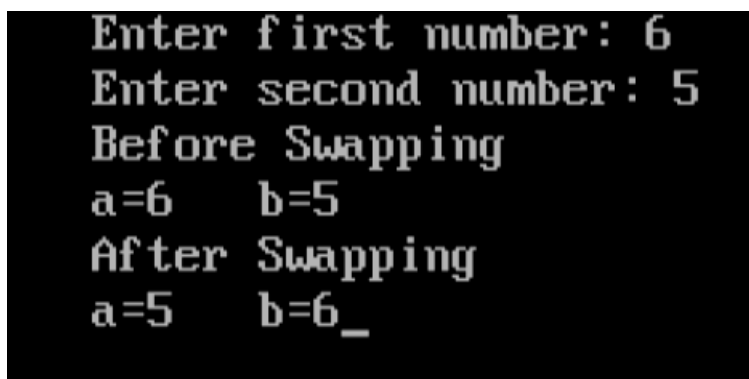
```
Enter marks of first subject: 98
Enter marks of second subject: 78
Enter marks of third subject: 82
Enetr marks of fourth subject: 66
Enter marks of fifth subject: 92
Total marks= 416.000000
Percentage= 83.199997%
```

Question 7: Write a program to show swap of two no's using third variable.

Coding:-

```
//Program to show swapping of two numbers using third variable
#include<stdio.h>
#include<conio.h>
void main()
{
    int a,b,c;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&a);
    printf("Enter second number: ");
    scanf("%d",&b);
    printf("Before Swapping\n");
    printf("a=%d b=%d\n",a,b);
    c=a;
    a=b;
    b=c;
    printf("After Swapping\n");
    printf("a=%d b=%d",a,b);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and green text. The output shows the program's execution: it prompts for the first number (6) and second number (5), displays the values before swapping (a=6, b=5), and then displays the values after swapping (a=5, b=6).

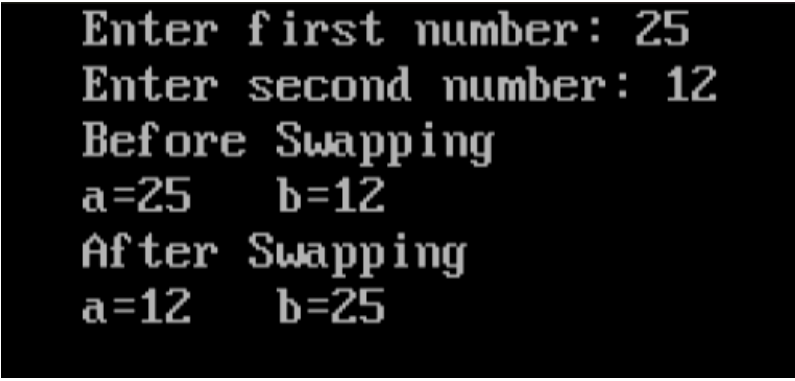
```
Enter first number: 6
Enter second number: 5
Before Swapping
a=6    b=5
After Swapping
a=5    b=6_
```


Question 8: Write a program to show swap of two no's without using third variable.

Coding:-

```
//Program to swap two numbers without using third variable
#include<stdio.h>
#include<conio.h>
void main()
{
    int a,b;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&a);
    printf("Enter second number: ");
    scanf("%d",&b);
    printf("Before Swapping\n");
    printf("a=%d b=%d\n",a,b);
    a=a+b;
    b=a-b;
    a=a-b;
    printf("After Swapping\n");
    printf("a=%d b=%d",a,b);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The text shows the execution of a C program for swapping two numbers. It starts with 'Enter first number: 25' and 'Enter second number: 12'. Then it says 'Before Swapping' followed by 'a=25 b=12'. After that, it says 'After Swapping' followed by 'a=12 b=25'.

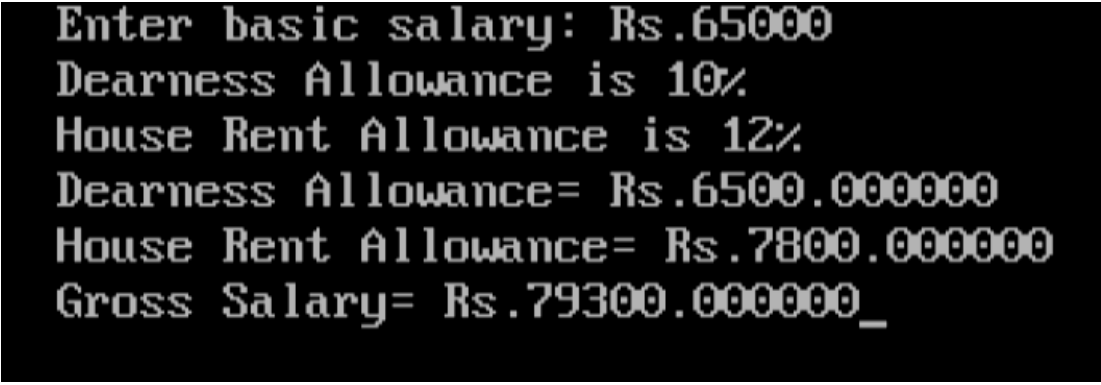
```
Enter first number: 25
Enter second number: 12
Before Swapping
a=25 b=12
After Swapping
a=12 b=25
```

Question 9: Write a program to find gross salary.

Coding:-

```
//Program to find gross salary
#include<stdio.h>
#include<conio.h>
void main()
{
    float bsal,grsal,da,hra;
    clrscr();
    printf("Enter basic salary: Rs.");
    scanf("%f",&bsal);
    printf("Dearness Allowance is 10%\n");
    printf("House Rent Allowance is 12%\n");
    da=(10*bsal)/100;
    hra=(12*bsal)/100;
    printf("Dearness Allowance= Rs.%f\n",da);
    printf("House Rent Allowance= Rs.%f\n",hra);
    grsal=bsal+da+hra;
    printf("Gross Salary= Rs.%f",grsal);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The output shows the program's execution: it prompts for basic salary (65000), calculates and displays Dearness Allowance (10%), House Rent Allowance (12%), and finally the Gross Salary (79300.000000).

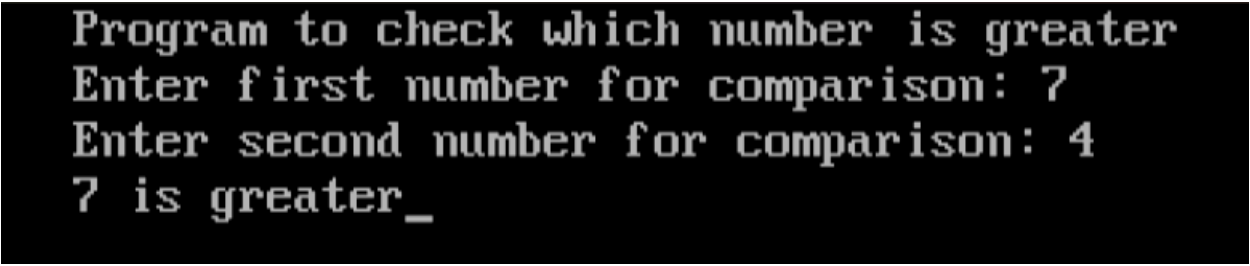
```
Enter basic salary: Rs.65000
Dearness Allowance is 10%
House Rent Allowance is 12%
Dearness Allowance= Rs.6500.000000
House Rent Allowance= Rs.7800.000000
Gross Salary= Rs.79300.000000_
```

Question 10: Write a program to show the use of conditional operator.

Coding:-

```
//Program to show the use of conditional operator
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2;
    clrscr();
    printf("Program to check which number is greater\n");
    printf("Enter first number for comparison: ");
    scanf("%d",&n1);
    printf("Enter second number for comparison: ");
    scanf("%d",&n2);
    if(n1>n2)
    {
        printf("%d is greater",n1);
    }
    else if(n1<n2)
    {
        printf("%d is greater",n2);
    }
    else
    {
        printf("%d and %d are equal",n1,n2);
    }
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The text shows the output of the program: 'Program to check which number is greater', followed by 'Enter first number for comparison: 7', then 'Enter second number for comparison: 4', and finally '7 is greater_'.

```
Program to check which number is greater
Enter first number for comparison: 7
Enter second number for comparison: 4
7 is greater_
```

Question 11: Write a program to input the value of days from user and convert into number of weeks and years. Print the result.

Coding:-

```
//Program to convert days into weeks and years

#include<stdio.h>

#include<conio.h>

void main()

{

    int days,week,year;

    clrscr();

    printf("Enter number of days: ");

    scanf("%d",&days);

    week=days/7;

    year=days/365;

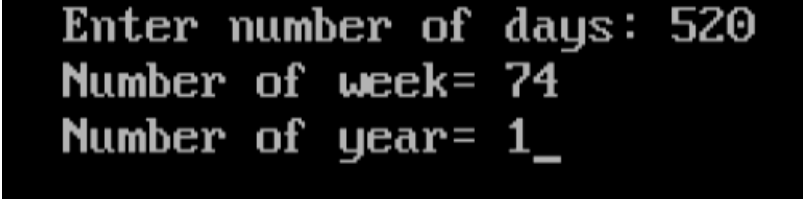
    printf("Number of week= %d\n",week);

    printf("Number of year= %d",year);

    getch();

}
```

Output:-

A screenshot of a terminal window with a black background and green text. It shows the output of the program: 'Enter number of days: 520', 'Number of week= 74', and 'Number of year= 1_'.

```
Enter number of days: 520
Number of week= 74
Number of year= 1_
```

Question 12: Write a C program to calculate hours and minutes where take value of time in seconds from user.

Coding:-

```
//Program to convert seconds into hours and minutes

#include<stdio.h>

#include<conio.h>

void main()

{

    int sec,hrs,min;

    clrscr();

    printf("Enter seconds to convert into hours and minutes: ");

    scanf("%d",&sec);

    min=sec/60;

    hrs=min/60;

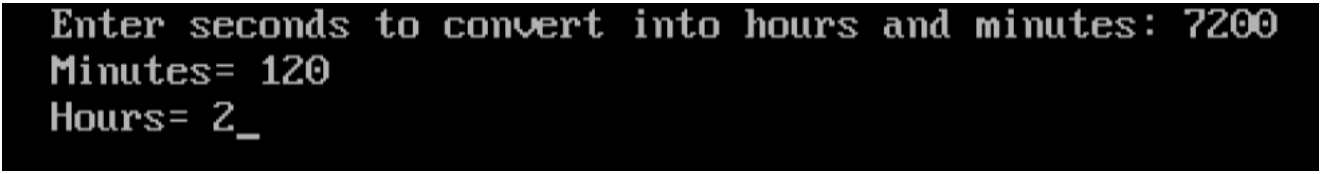
    printf("Minutes= %d\n",min);

    printf("Hours= %d",hrs);

    getch();

}
```

Output:-

A screenshot of a terminal window with a black background and white text. The text shows the execution of the C program: the prompt 'Enter seconds to convert into hours and minutes: 7200' is followed by the output 'Minutes= 120' and 'Hours= 2_'.

```
Enter seconds to convert into hours and minutes: 7200
Minutes= 120
Hours= 2_
```

Question 13: Write a program to solve the following equation. $c=ax+by$. (Consider $a=5$ and $b=6$) Take values of x and y from user.

Coding:-

```
//Program to solve the equation

#include<stdio.h>

#include<conio.h>

void main()

{

    int a,b,c,x,y;

    clrscr();

    printf("Solution of the equation: c=ax+by\n");

    a=5;

    b=6;

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

    scanf("%d",&x);

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

    scanf("%d",&y);

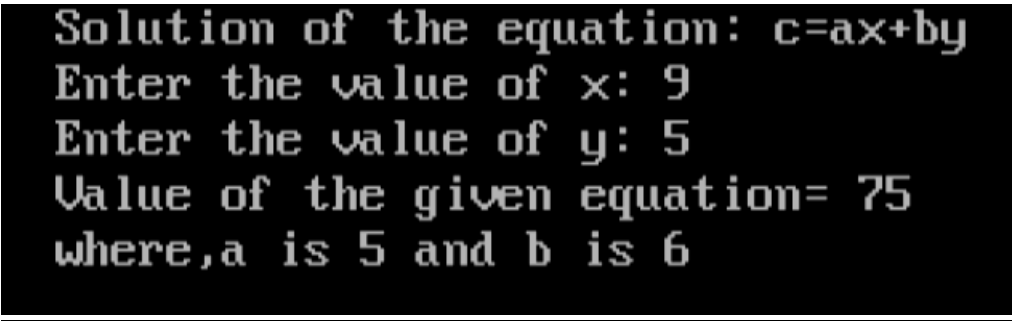
    c=(a*x)+(b*y);

    printf("Value of the given equation= %d\nwhere,a is 5 and b is 6",c);

    getch();

}
```

Output:-

A screenshot of a terminal window with a black background and green text. The output shows the program's execution: it first prints the title 'Solution of the equation: c=ax+by', then prompts for 'x' and 'y'. The user enters '9' for x and '5' for y. Finally, it prints the calculated value of the equation, 75, and states that 'a is 5 and b is 6'.

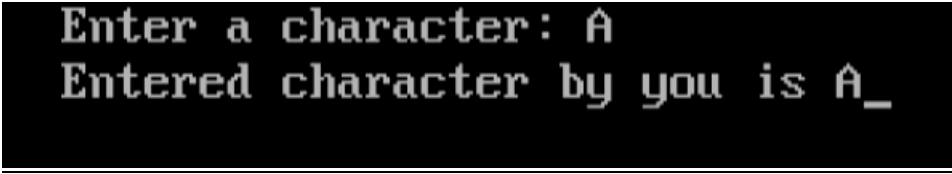
```
Solution of the equation: c=ax+by
Enter the value of x: 9
Enter the value of y: 5
Value of the given equation= 75
where,a is 5 and b is 6
```

Question 14: Write a program to read a character from user and print on screen using getchar() and putchar() functions.

Coding:-

```
//Program to read a character from user  
  
#include<stdio.h>  
  
#include<conio.h>  
  
void main()  
{  
    char ch;  
    clrscr();  
    printf("Enter a character: ");  
    ch=getchar();  
    printf("Entered character by you is ");  
    putchar(ch);  
    getch();  
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The first line shows the prompt "Enter a character: " followed by the character 'A'. The second line shows the output "Entered character by you is A_".

```
Enter a character: A  
Entered character by you is A_
```

Question 15: Write a program to find whether given no. is even or odd.

Coding:-

```
//Program to check the given number is even or odd

#include<stdio.h>

#include<conio.h>

void main()

{

    int n;

    clrscr();

    printf("Enter a number: ");

    scanf("%d",&n);

    if(n%2==0)

    {

        printf("%d is a even number.",n);

    }

    else

    {

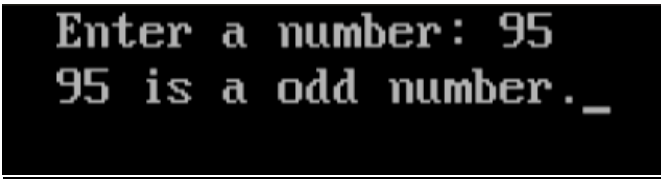
        printf("%d is a odd number.",n);

    }

    getch();

}
```

Output:-

A screenshot of a terminal window with a black background and white text. The first line shows the prompt 'Enter a number: 95'. The second line shows the output '95 is a odd number._' where the underscore represents the cursor.

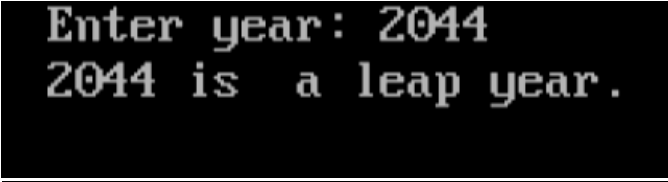
```
Enter a number: 95
95 is a odd number._
```


Question 16: Write a program to find that entered year is leap year or not.

Coding:-

```
//Program to check whether the entered year is leap year or not
#include<stdio.h>
#include<conio.h>
void main()
{
    int year;
    clrscr();
    printf("Enter year: ");
    scanf("%d",&year);
    if(year%400==0)
    {
        printf("%d is a leap year.",year);
    }
    else if(year%4==0 && year%100!=0)
    {
        printf("%d is a leap year.",year);
    }
    else
    {
        printf("%d is not a leap year.",year);
    }
    getch();
}
```

Output:-



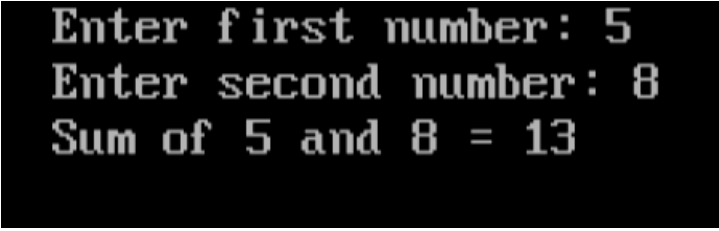
```
Enter year: 2044
2044 is a leap year.
```

Question 17: Write a program to calculate sum of odd and even numbers.

Coding:-

```
//Program to calculate the sum of odd and even numbers
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2,sum;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&n1);
    printf("Enter second number: ");
    scanf("%d",&n2);
    sum=n1+n2;
    printf("Sum of %d and %d = %d\n",n1,n2,sum);
    if(n1%2!=0 && n2%2!=0)
    {
        printf("Entered numbers are odd!Please enter one odd & one even number");
    }
    else if(n1%2==0 && n2%2==0)
    {
        printf("Entered numbers are even!Please enter one odd & one even number");
    }
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It shows the output of the program: 'Enter first number: 5', 'Enter second number: 8', and 'Sum of 5 and 8 = 13'.

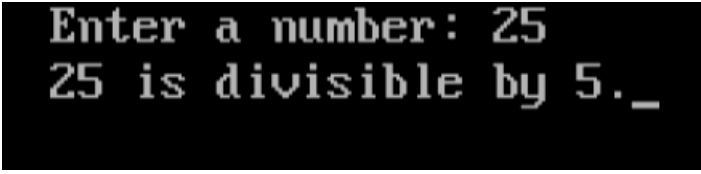
```
Enter first number: 5
Enter second number: 8
Sum of 5 and 8 = 13
```

Question 18: Write a program whether given integer is divisible by 5.

Coding:-

```
//Program to check whether the number is divisible by 5
#include<stdio.h>
#include<conio.h>
void main()
{
    int n;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    if(n%5==0)
    {
        printf("%d is divisible by 5.",n);
    }
    else
    {
        printf("%d is not divisible by 5.",n);
    }
    getch();
}
```

Output:-



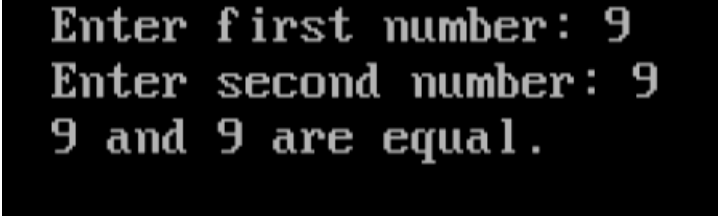
```
Enter a number: 25
25 is divisible by 5._
```

Question 19: Write a program to accept two numbers and check whether both are equal.

Coding:-

```
//Program to check whether both entered numbers are equal
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&n1);
    printf("Enter second number: ");
    scanf("%d",&n2);
    if(n1==n2)
    {
        printf("%d and %d are equal.",n1,n2);
    }
    else
    {
        printf("%d and %d are not equal.",n1,n2);
    }
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The text shows the program's execution: it prompts for the first number, the user enters '9', it prompts for the second number, the user enters '9', and finally, it outputs '9 and 9 are equal.'.

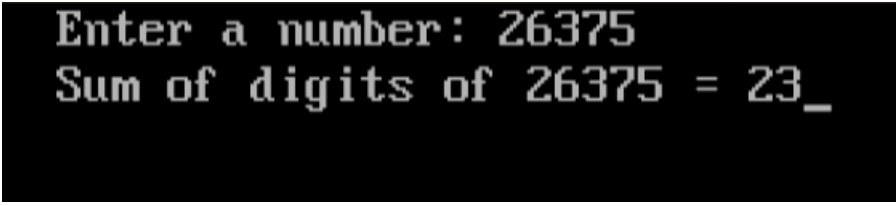
```
Enter first number: 9
Enter second number: 9
9 and 9 are equal.
```

Question 20: Write a program to compute sum of all digits in a number.

Coding:-

```
//Program to calculate sum of digits in a number
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,r,n1;
    int sum=0;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    n1=n;
    while(n!=0)
    {
        r=n%10;
        sum=sum+r;
        n=n/10;
    }
    printf("Sum of digits of %d = %d",n1,sum);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The first line shows the prompt 'Enter a number:' followed by the input '26375'. The second line shows the output 'Sum of digits of 26375 = 23_'.

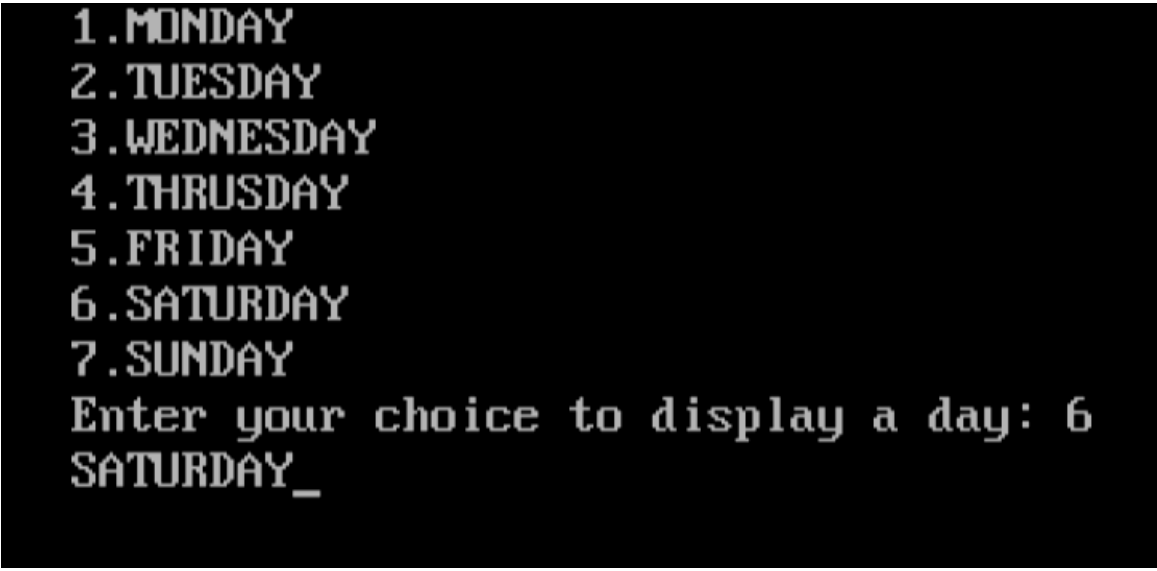
```
Enter a number: 26375
Sum of digits of 26375 = 23_
```

Question 21: Write a program to show Monday to Sunday using switch case.

Coding:-

```
//Program to show monday to sunday using switch case
#include<stdio.h>
#include<conio.h>
void main()
{
    int day;
    clrscr();
    printf("1.MONDAY\n");
    printf("2.TUESDAY\n");
    printf("3.WEDNESDAY\n");
    printf("4.THRUSDAY\n");
    printf("5.FRIDAY\n");
    printf("6.SATURDAY\n");
    printf("7.SUNDAY\n");
    printf("Enter your choice to display a day: ");
    scanf("%d",&day);
    switch(day)
    {
        case 1:printf("MONDAY");
        break;
        case 2:printf("TUESDAY");
        break;
        case 3:printf("WEDNESDAY");
        break;
        case 4:printf("THRUSDAY");
        break;
        case 5:printf("FRIDAY");
        break;
        case 6:printf("SATURDAY");
        break;
        case 7:printf("SUNDAY");
        break;
        default:printf("Wrong input! Please enter a valid input.");
    }
    getch();
}
```

Output:-



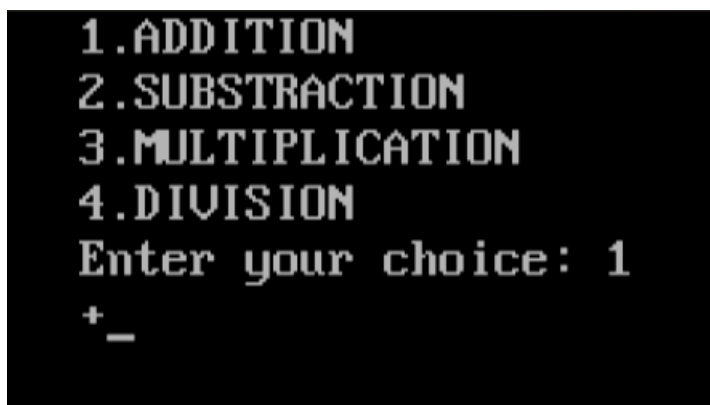
```
1.MONDAY
2.TUESDAY
3.WEDNESDAY
4.THRUSDAY
5.FRIDAY
6.SATURDAY
7.SUNDAY
Enter your choice to display a day: 6
SATURDAY_
```

Question 22: Write a program to show arithmetic operators using switch case.

Coding:-

```
//Program to show arithmetic operators using switch case
#include<stdio.h>
#include<conio.h>
void main()
{
    int ch;
    clrscr();
    printf("1.ADDITION\n");
    printf("2.SUBTRACTION\n");
    printf("3.MULTIPLICATION\n");
    printf("4.DIVISION\n");
    printf("Enter your choice: ");
    scanf("%d",&ch);
    switch(ch)
    {
        case 1:printf("+");
        break;
        case 2:printf("-");
        break;
        case 3:printf("*");
        break;
        case 4:printf("/");
        break;
        default:printf("Wrong input! Please enter a valid input.");
    }
    getch();
}
```

Output:-



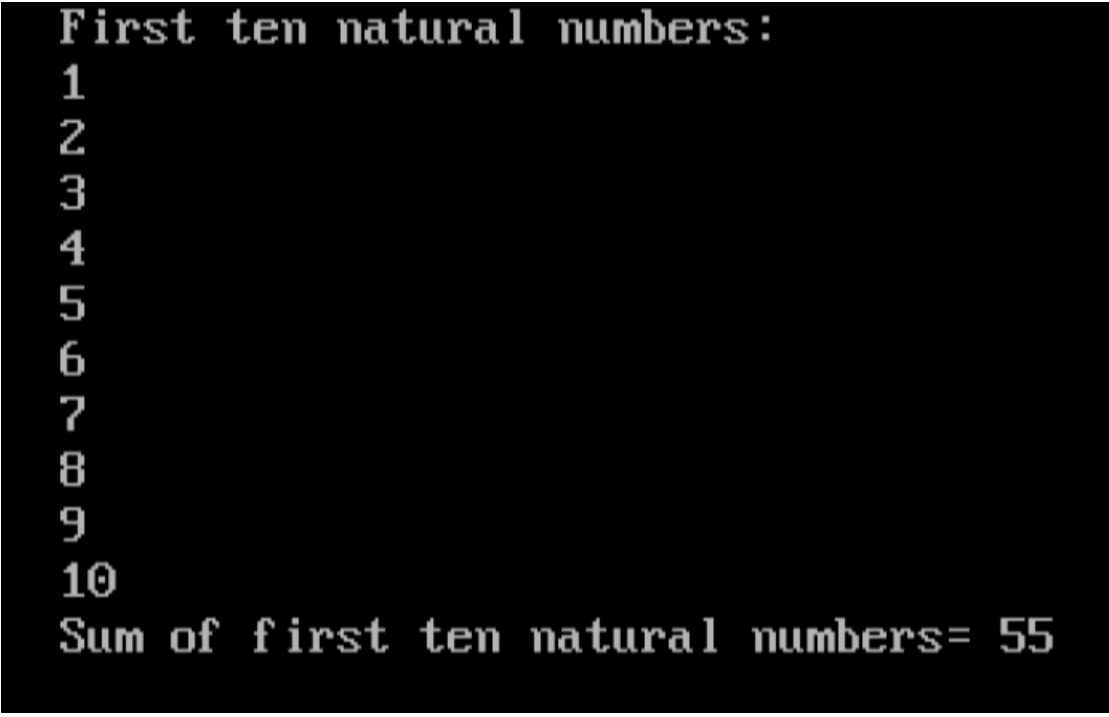
The screenshot shows the output of the program in a terminal window. It displays a menu with four options: 1.ADDITION, 2.SUBTRACTION, 3.MULTIPLICATION, and 4.DIVISION. Below the menu, it prompts the user to 'Enter your choice:'. The user has entered '1', and the program has responded with the addition symbol '+'. There is a small horizontal line below the '+' symbol.

Question 23: Write a program to display first 10 natural numbers & their sum.

Coding:-

```
//Program to display 10 natural numbers & their sum
#include<stdio.h>
#include<conio.h>
void main()
{
    int i;
    int sum=0;
    clrscr();
    printf("First ten natural numbers:\n");
    for(i=1;i<=10;i++)
    {
        printf("%d\n",i);
        sum=sum+i;
    }
    printf("Sum of first ten natural numbers= %d",sum);
    getch();
}
```

Output:-



```
First ten natural numbers:
1
2
3
4
5
6
7
8
9
10
Sum of first ten natural numbers= 55
```


Coding:-

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

```
void main()
```

Output:-

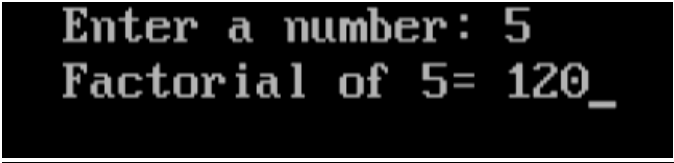
Fibonacci Series:									
0	1	1	2	3	5	8	13	21	34
55	89								

Question 25: Write a program to find factorial of a number.

Coding:-

```
//Program to find the factorial of a number
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i;
    int fact=1;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        fact=fact*i;
    }
    printf("Factorial of %d= %d",n,fact);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The first line shows the prompt 'Enter a number: ' followed by the user input '5'. The second line shows the output 'Factorial of 5= 120_' where the underscore indicates the cursor position.

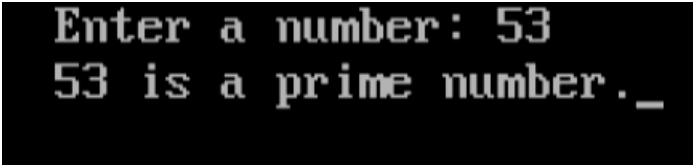
```
Enter a number: 5
Factorial of 5= 120_
```

Question 26: Write a program to find whether given no. is a prime no. or not.

Coding:-

```
//Program to find whether entered number is prime or not
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i;
    int c=0;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        if(n%i==0)
        {
            c=c++;
        }
    }
    if(c==2)
    {
        printf("%d is a prime number.",n);
    }
    else if(n==1)
    {
        printf("%d is neither prime nor composite number.",n);
    }
    else
    {
        printf("%d is not a prime number.",n);
    }
    getch();
}
```

Output:-



```
Enter a number: 53
53 is a prime number._
```

Question 27: Write a program to display sum of series $1+1/2+1/3+\dots+1/n$.

Coding:-

```
//Program to display sum of series
#include<stdio.h>
#include<conio.h>
void main()
{
    float i,n;
    float sum=0.0;
    clrscr();
    printf("Pattern of series given in the question: 1+1/2+1/3+.....+1/n");
    printf("\nEnter the limit: ");
    scanf("%f",&n);
    for(i=1;i<=n;i++)
    {
        sum=sum+(1/i);
    }
    printf("Sum of series= %f",sum);
    getch();
}
```

Output:-

```
Pattern of series given in the question: 1+1/2+1/3+.....+1/n
Enter the limit: 5
Sum of series= 2.283334_
```

Question 28:- Write a program to display series and find sum of $1+3+5+\dots+n$.

Coding:-

```
//Program to display series and sum of the series
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i;
    int sum=1;
    clrscr();
    printf("Pattern of series given in question: 1+3+5+.....+n\n");
    printf("Enter the limit: ");
    scanf("%d",&n);
    printf("Series: 1");
    for(i=3;i<=n;i+=2)
    {
        printf("+%d",i);
        sum=sum+i;
    }
    printf("\nSum of series= %d",sum);
    getch();
}
```

Output:-

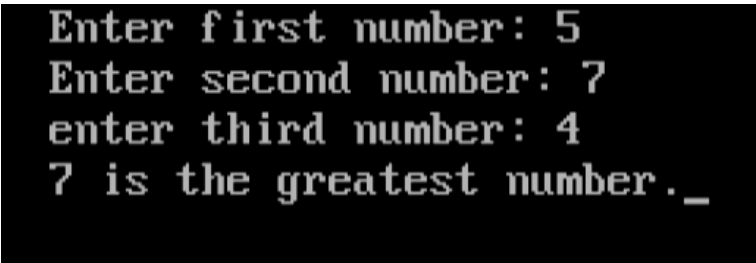
```
Pattern of series given in question: 1+3+5+.....+n
Enter the limit: 10
Series: 1+3+5+7+9
Sum of series= 25_
```

Question 29: Write a program to decide which number is maximum among 3 numbers entered by user.

Coding:-

```
//Program to find the greatest number among three numbers
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2,n3;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&n1);
    printf("Enter second number: ");
    scanf("%d",&n2);
    printf("enter third number: ");
    scanf("%d",&n3);
    if(n1>n2&& n1>n3)
    {
        printf("%d is the greatest number.",n1);
    }
    else if(n2>n1&& n2>n3)
    {
        printf("%d is the greatest number.",n2);
    }
    else if(n3>n1&& n3>n2)
    {
        printf("%d is the greatest number.",n3);
    }
    else if(n1==n2&& n1>n3)
    {
        printf("%d & %d is equal but greater than %d.",n1,n2,n3);
    }
    else if(n2==n3&& n2>n1)
    {
        printf("%d & %d is equal but greater than %d.",n2,n3,n1);
    }
    else if(n1==n3&& n3>n2)
    {
        printf("%d & %d is equal but greater than %d.",n1,n3,n2);
    }
    else if(n1==n2&& n2==n3)
    {
        printf("All the three numbers(%d,%d,%d) entered are equal!",n1,n2,n3);
        printf("\nPlease enter different numbers to compare.");
    }
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It shows the execution of the program where the user enters three numbers: 5, 7, and 4. The program then outputs that 7 is the greatest number, followed by a cursor underscore.

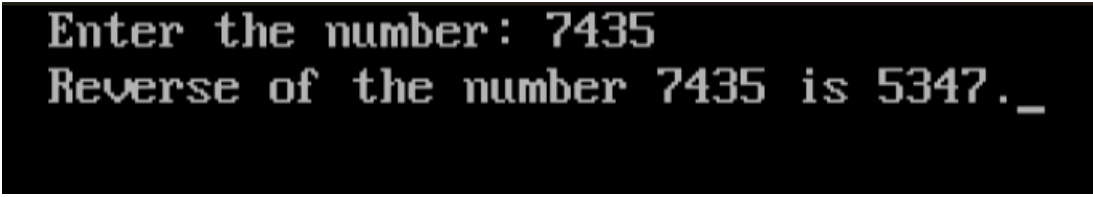
```
Enter first number: 5
Enter second number: 7
enter third number: 4
7 is the greatest number._
```

Question 30: Write a program to reverse the digits of the number entered by user.

Coding:-

```
//Program to reverse the digits of the number
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,n1,rem;
    int r=0;
    clrscr();
    printf("Enter the number: ");
    scanf("%d",&n);
    n1=n;
    while(n!=0)
    {
        rem=n%10;
        r=r*10+rem;
        n=n/10;
    }
    printf("Reverse of the number %d is %d.",n1,r);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and green text. The first line shows the prompt 'Enter the number: ' followed by the input '7435'. The second line shows the output 'Reverse of the number 7435 is 5347._' where the underscore represents a cursor.

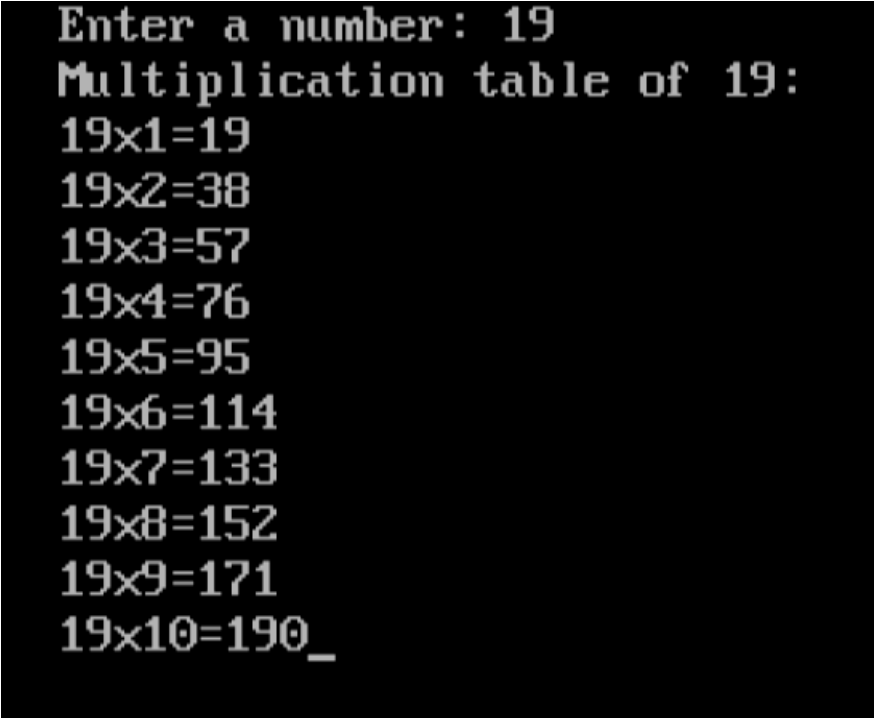
```
Enter the number: 7435
Reverse of the number 7435 is 5347._
```

Question 31: Write a program to find table of any number entered by user.

Coding:-

```
//Program to find multiplication table of a number
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i,m;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    printf("Multiplication table of %d:",n);
    for(i=1;i<=10;i++)
    {
        m=n*i;
        printf("\n%dx%d=%d",n,i,m);
    }
    getch();
}
```

Output:-



```
Enter a number: 19
Multiplication table of 19:
19x1=19
19x2=38
19x3=57
19x4=76
19x5=95
19x6=114
19x7=133
19x8=152
19x9=171
19x10=190_
```


Question 32: Write a program to find perfect number.

Coding:-

```
//Program to find perfect number
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i;
    int sum=0;
    clrscr();
    printf("Enter a number: ");
    scanf("%d",&n);
    for(i=1;i<n;i++)
    {
        if(n%i==0)
        {
            sum=sum+i;
        }
    }
    if(sum==n)
    {
        printf("%d is a perfect number.",n);
    }
    else
    {
        printf("%d is not a perfect number.",n);
    }
    getch();
}
```

Output:-



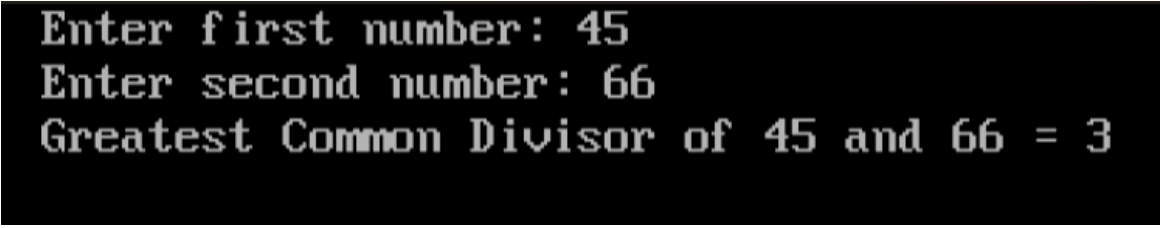
```
Enter a number: 28
28 is a perfect number.
```

Question 33: Write a program to find GCD of two numbers.

Coding:-

```
//Program to find GCD of two numbers
#include<stdio.h>
#include<conio.h>
void main()
{
    int n1,n2,i,j,gcd;
    clrscr();
    printf("Enter first number: ");
    scanf("%d",&n1);
    printf("Enter second number: ");
    scanf("%d",&n2);
    for(i=1;i<=n1;i++)
    {
        for(j=1;j<=n2;j++)
        {
            if(n1%i==0&& n2%i==0)
            {
                gcd=i;
            }
        }
    }
    printf("Greatest Common Divisor of %d and %d = %d",n1,n2,gcd);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and green text. It shows the output of the GCD program: 'Enter first number: 45', 'Enter second number: 66', and 'Greatest Common Divisor of 45 and 66 = 3'.

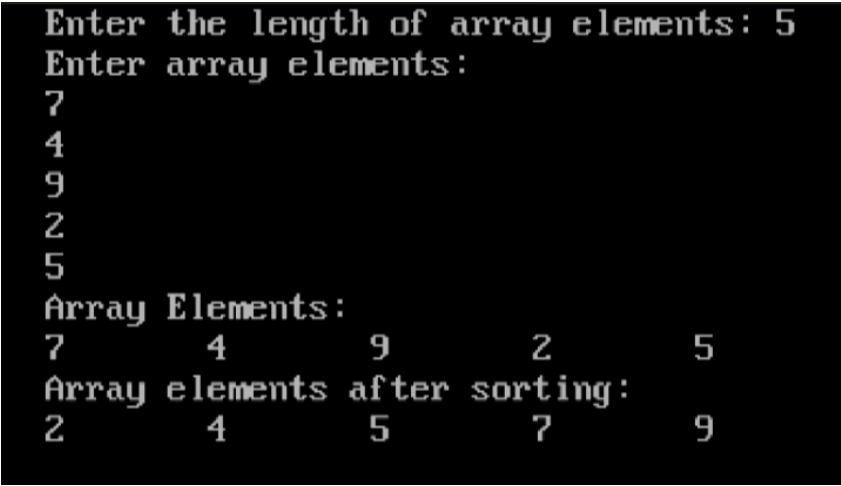
```
Enter first number: 45
Enter second number: 66
Greatest Common Divisor of 45 and 66 = 3
```

Question 34: Write a program to display array members and sort array members.

Coding:-

```
//Program to display and sort array members
#include<stdio.h>
#include<conio.h>
void main()
{
    int a[50],l,i,j,temp;
    clrscr();
    printf("Enter the length of array elements: ");
    scanf("%d",&l);
    printf("Enter array elements:\n");
    for(i=0;i<l;i++)
    {
        scanf("%d",&a[i]);
    }
    printf("Array Elements:\n");
    for(i=0;i<l;i++)
    {
        printf("%d\t",a[i]);
    }
    for(i=0;i<l;i++)
    {
        for(j=i+1;j<l;j++)
        {
            if(a[i]>a[j])    //sorting elements in ascending order
            {
                temp=a[i];
                a[i]=a[j];
                a[j]=temp;
            }
        }
    }
    printf("\nArray elements after sorting:\n");
    for(i=0;i<l;i++)
    {
        printf("%d\t",a[i]);
    }
    getch();
}
```

Output:-



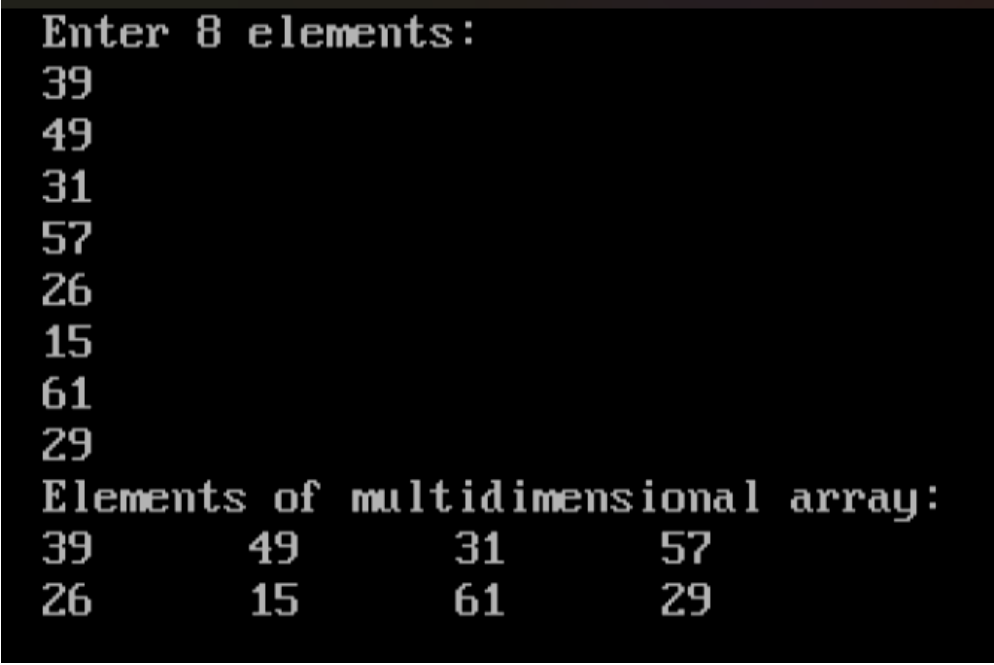
```
Enter the length of array elements: 5
Enter array elements:
7
4
9
2
5
Array Elements:
7      4      9      2      5
Array elements after sorting:
2      4      5      7      9
```

Question 35: Write a program to display array members of multidimensional array.

Coding:-

```
//Program to display members of multidimensional array
#include<stdio.h>
#include<conio.h>
void main()
{
    int a[2][4],i,j;
    clrscr();
    printf("Enter 8 elements:\n");
    for(i=0;i<2;i++)
    {
        for(j=0;j<4;j++)
        {
            scanf("%d",&a[i][j]);
        }
    }
    printf("Elements of multidimensional array:\n");
    for(i=0;i<2;i++)
    {
        for(j=0;j<4;j++)
        {
            printf("%d\t",a[i][j]);
        }
        printf("\n");
    }
    getch();
}
```

Output:-



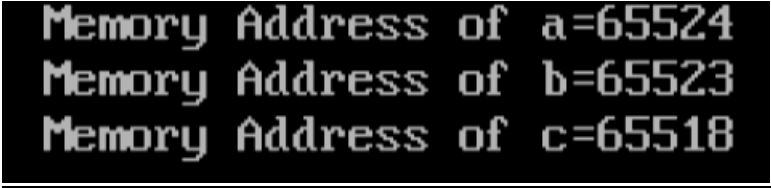
```
Enter 8 elements:
39
49
31
57
26
15
61
29
Elements of multidimensional array:
39      49      31      57
26      15      61      29
```

Question 36: Write a program to implement basic concepts of pointer.

Coding:-

```
//Program to implement basic concepts of pointer
#include<stdio.h>
#include<conio.h>
void main()
{
    int a=5;
    char b='p';
    float c=4.2;
    clrscr();
    printf("Memory Address of a=%u\n",&a);
    printf("Memory Address of b=%u\n",&b);
    printf("Memory Address of c=%u",&c);
    getch();
}
```

Output:-



```
Memory Address of a=65524
Memory Address of b=65523
Memory Address of c=65518
```

Question 37:- Write a program to declare and initialize the string.

Coding:-

```
//Program to declare and initialize a string
#include<stdio.h>
#include<conio.h>
void main()
{
    char name[30];
    clrscr();
    printf("Enter your Name: ");
    gets(name);
    printf("My name is ");
    puts(name);
    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. The text is displayed in two lines: "Enter your Name: Saumya Deep" and "My name is Saumya Deep".

```
Enter your Name: Saumya Deep
My name is Saumya Deep
```

Question 38: Write a program to implement standard library functions: strlen(), strcpy(), strcat(), strcmp().

Coding:-

```
//Program to implement standard library functions
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char a[]="BCA";
    char b[]="SectionA";
    char c[]="SectionB";
    char d[]="FirstSemester";
    char e[30];
    int len,result;
    clrscr();
    len=strlen(a);
    printf("Length of %s=%d\n",a,len);
    strcpy(e,a);
    printf("After copying the data of one variable to another: %s\t%s\n",a,e);
    printf("After concatenating %s and %s: ",a,d);
    strcat(a,d);
    printf("%s\n",a);
    result=strcmp(b,c);
    printf("Result after comparing %s and %s = %d",b,c,result);
    getch();
}
```

Output:-

```
Length of BCA=3
After copying the data of one variable to another: BCA  BCA
After concatenating BCA and FirstSemester: BCAFirstSemester
Result after comparing SectionA and SectionB = -1
```

Question 39: Write a program to declare and initialize a union.

Coding:-

```
//Program to declare and initialize the union

#include<stdio.h>

#include<conio.h>

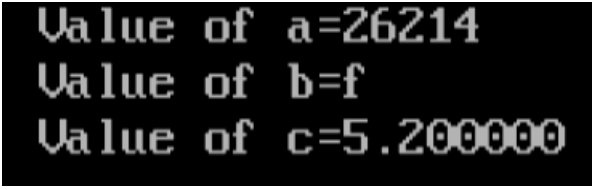
union uni
{
    int a;
    char b;
    float c;
};

void main()
{
    union uni u;
    clrscr();
    u.a=5;
    u.b='k';
    u.c=5.2;

    printf("Value of a=%d\nValue of b=%c\nValue of c=%f",u.a,u.b,u.c);

    getch();
}
```

Output:-

A screenshot of a terminal window with a black background and white text. It displays the output of the C program: 'Value of a=26214', 'Value of b=f', and 'Value of c=5.200000' on three separate lines.

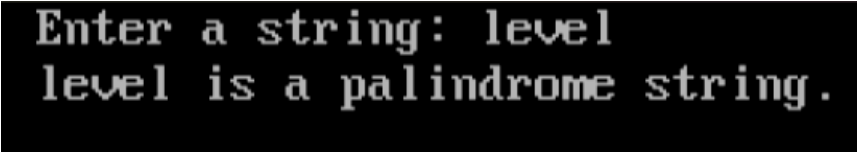
```
Value of a=26214
Value of b=f
Value of c=5.200000
```


Question 40: Write a program to check entered string is palindrome or not.

Coding:-

```
//Program to check entered string is palindrome or not
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
    char s1[50];
    char s2[50];
    clrscr();
    printf("Enter a string: ");
    gets(s1);
    strcpy(s2,s1);
    strrev(s2);
    if(strcmp(s1,s2)==0)
    {
        printf("%s is a palindrome string.",s1);
    }
    else
    {
        printf("%s is not a palindrome string.",s1);
    }
    getch();
}
```

Output:-



```
Enter a string: level
level is a palindrome string.
```