

Q1. WAP in C which will calculate the following formula : $ax + b - c$, where a, b and c are to be input by the user.

```
=>
void main()
{
    float a,b,x, sum=0;
    clrscr();
    printf("ENTER VALUES OF a, b, x ");
    scanf("%f%f%f", &a, &b,&x);
    sum=a*x+b-c;
    printf("RESULT= %f", sum);
    getch();
}
```

Q2. WAP in C which will calculate the summation of n input numbers.

```
=>
void main()
{
    int i, n, num, sum=0;
    clrscr();
    printf("ENTER THE VALUE OF n ");
    scanf("%d", &n);
    i=n;
    while(i >0)
    {
        Printf("INSERT A NUMBER");
        Scanf("%d", &num);
        sum=sum + num;
        i--;
    }
    printf("SUM OF n NUMBERS IS = %d", sum);
    getch();
}
```

Q3. WAP in C to find the summation of the digits in an input integer.

```
=>
void main()
{
    int i, n, num, sum=0;
    clrscr();
    printf("ENTER ANY NUMBER ");
    scanf("%d", &num);
    i=num;
    while(i >0)
    {
```

```

        n = i %10;
        sum = sum + n;
        i = i /10;
    }
    printf("SUM OF THE DIGITS = %d", sum);
    getch();
}

```

Q4. WAP in C which will calculate the result of the following series up to n terms:

1 - 2 + 3 - 4 + 5 -

=>

```

void main()
{
    int i, n, sum=0;
    clrscr();
    printf("ENTER THE VALUE OF n ");
    scanf("%d", &n);
    for(i=1 ; i<=n ; i++)
    {
        if(i %2==0)
        {
            sum = sum - i;
        }
        else
        {
            sum = sum + i;
        }
    }
    printf("SUM OF THE SERIES = %d", sum);
    getch();
}

```

Q5. WAP in C to reverse a number.

=>

```

void main()
{
    int i, n, num, sum=0;
    clrscr();
    printf("ENTER ANY NUMBER ");
    scanf("%d", &num);
    i=num;
    while(i >0)
    {
        n = i %10;
        sum = sum*10 + n;
        i = i /10;
    }
    printf("THE REVERSE NUMBER IS = %d", sum);
}

```

```
    getch();  
}
```

Q. WAP in C to print all Even numbers between 50 to 100 and also find their sum.

=>

```
#include<stdio.h>  
#include<conio.h>  
void main()  
{  
    int i, SUM=0;  
    printf("\n The Even numbers between 50 & 100 are: ");  
    for(i=50; i<=100; i++)  
    {  
        if(i%2==0)  
        {  
            printf("%d", i);  
            printf(" ");  
            SUM=SUM+i;  
        }  
    }  
    Printf("\n sum of the Even numbers=%d", SUM);  
    getch();  
}
```

Q6. WAP in C to check an input number is Prime or not.

=>

```
void main()  
{  
    int i, n, count=0;  
    clrscr();  
    printf("ENTER ANY NUMBER ");  
    scanf("%d", &n);  
    for(i=0; i<=n; i++)  
    {  
        If(n % i == 0)  
        {  
            count++;  
        }  
    }  
    If(count==2)  
    {  
        printf("PRIME NUMBER");  
    }  
    else  
    {  
        printf("NOT PRIME");  
    }  
    getch();  
}
```

Q7. //STRING PALINDROME OR NOT

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

void main()
{
    int i, j=0, x=0;
    char a[20], b[20];
    printf("ENTER A STRING");
    gets(a);
    x=strlen(a);
    i=x;
    while(i>=0)
    {
        b[ j ] = a[ i ];
        i--;
        j++;
    }
    b[ j ]='\0';

    x=strcmp(a , b);
    if(x==0)
    {
        printf("STRING IS PALINDROME");
    }
    else
    {
        printf("STRING IS NOT PALINDROME");
    }
    getch();
}
```

Q8. //Reverse a number.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int i, n, num, sum=0;
    clrscr();
    printf("ENTER ANY NUMBER ");
    scanf("%d", &num);
    i=num;
    while(i >0)
    {
        n = i %10;
        sum = sum*10 + n;
        i = i /10;
    }
    printf("THE REVERSE NUMBER IS = %d", sum);
    getch();
}
```

PROGRAM TO COPY ONE TEXT FILE TO ANOTHER TEXT FILE IN C LANGUAGE

```
#include <stdio.h>
#include <stdlib.h>
void main()
{
    FILE *fptr1, *fptr2;
    char filename[100], c;

    printf("Enter the filename to open for reading \n");
    scanf("%s", filename);

    // Open one file for reading
    fptr1 = fopen(filename, "r");
    if (fptr1 == NULL)
    {
        printf("Cannot open file %s \n", filename);
        exit(0);
    }

    printf("Enter the filename to open for writing \n");
    scanf("%s", filename);

    // Open another file for writing
    fptr2 = fopen(filename, "w");
    if (fptr2 == NULL)
    {
        printf("Cannot open file %s \n", filename);
        exit(0);
    }

    // Read contents from file
    c = fgetc(fptr1);
    while (c != EOF)
    {
        fputc(c, fptr2);
        c = fgetc(fptr1);
    }
    printf("\nContents copied to %s", filename);
    fclose(fptr1);
    fclose(fptr2);
}
```

REVERSE A STRING WITHOUT USING 2ND ARRAY:

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

CONVERT A NUMBER TO TEXT.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int num, n;
    int x=0, p=0;
    clrscr();
    printf("\nENTER ANY NUMBER : ");
    scanf("%d", &num);
    n=num;
    while(n>0)
    {
        p=n%10;
        x=x*10+p;
        n=n/10;
    }

    while(x>0)
    {
        p=x%10;
        switch(p)
        {
            case 0:    printf("ZERO");
                       break;
            case 1:    printf("ONE");
                       break;
            case 2:    printf("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;
    }
    printf(" ");
    x=x/10;
}
getch();
}

```

SMALLEST OF THREE NUMBERS.

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int n1, n2, n3, s;
    clrscr();
    printf("\nENTER ANY THREE NUMBERS : ");

    scanf("%d%d%d", &n1,&n2,&n3);
    if(n1<n2)
    {
        if(n1<n3)
        {
            printf("\nSMALLER=%d", n1);
        }
        else
        {
            printf("\n SMALLER=%d", n3);
        }
    }
    else if(n2<n3)
    {
        printf("\n SMALLER=%d", n2);
    }
    else
    {
        printf("\n SMALLER=%d", n3);
    }
    getch();
}

```

WAP in C to display the sum and average of the elements of an array

=>

```
#include<stdio.h>
#include<conio.h>
void main()
{
    float i, a[10], sum=0, avg=0;
    printf("Enter 10 numbers in the Array");
    for(i=0; i<10; i++)
    {
        scanf("%f", &a[i]);
        sum=sum+a[i];
    }
    avg=sum/10;
    printf("\n The SUM is=%f", sum);
    printf("\n The Average is=%f", avg);
    getch();
}
```

ADDITION OF TWO MATRICES:

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int r, c, a[10][10], b[10][10], sum[10][10], i, j;
    printf("Enter the number of rows ");
    scanf("%d", &r);
    printf("Enter the number of columns ");
    scanf("%d", &c);
    printf("Enter elements of 1st matrix:");
    for (i = 0; i < r; ++i)
        for (j = 0; j < c; ++j)
        {
            scanf("%d", &a[i][j]);
        }
    printf("Enter elements of 2nd matrix:\n");
    for (i = 0; i < r; ++i)
        for (j = 0; j < c; ++j)
        {
            scanf("%d", &b[i][j]);
        }
    // matrices addition
    for (i = 0; i < r; ++i)
        for (j = 0; j < c; ++j)
        {
            sum[i][j] = a[i][j] + b[i][j];
        }
    // Display final Matrix
    printf("\nSum of two matrices: \n");
    for (i = 0; i < r; ++i)
```



```

for (j = 0; j < c; ++j)
{
    printf("%d ", sum[i][j]);
    if (j == c - 1)
    {
        printf("\n\n");
    }
}
getch();
}

```

WAP IN C TO CHECK A NUMBERS IS ARMSTRONG NUMBER

```

#include<stdio.h>
#include<conio.h>
void main()
{
    int n, r, sum=0, temp;
    printf("Enter the number=");
    scanf("%d",&n);
    temp=n;
    while(n>0)
    {
        r=n%10;
        sum=sum+(r*r*r);
        n=n/10;
    }
    if(temp==sum)
        printf("\n Armstrong number ");
    else
        printf("\n Not Armstrong number");
    getch();
}

```