



**OPERATORS****5. WAP of Sum & Average of 3 numbers**

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int i,no1,no2,no3;
    float sum=0,avg;
    no1=10;
    no2=10;
    no3=10;
    clrscr();
    sum=no1+no2+no3;
    avg=sum / 3;

    printf("\nSum of numbers : %.2f ",sum);
    printf("\nAvg of numbers : %.2f ",avg);

    getch();
}
```

**Output:->****Sum of numbers : 30.00****Avg of numbers : 10.00****6. WAP to find Areas & Circumference of various Shapes**

```
#include <stdio.h>
void main()
{ /*Areas of Circle = pie * r * r */
    double radius, circum, breath, height, area, radius;
    clrscr();
    printf("\nEnter radius:");
    scanf("%lf",&radius);
    area= 3.14 * radius * radius;
    printf("\nArea = %lf\n", area);

    /*Area of Triangle = 0.5 * b * h */
    printf("\nEnter breath and height :");
    scanf("%lf",&breath);
    scanf("%lf",&height);
    area= 0.5 * breath * height;
    printf("\nArea = %lf\n", area);

    /* Circumference of CIRCLE = 2 * pie * r */
    circum= 2 * 3.14 * radius;
    printf("circum = %lf\n", circum);

    getch();
}
```

**Output -> Enter radius:10****Area = 314.000000****Enter breath and height :5****5****Area = 12.500000 circum = 62.800000****7. WAP to Get no. of seconds as input and find out Minutes, Hour & Remaining Seconds**

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int sec=0,min=0,hour=0,remsec=0;
    clrscr();
    printf("\nEnter seconds : ");
    scanf("%d",&sec);
    hour =sec / 3600;
    min =(sec % 3600)/60;
    remsec= (sec % 3600)%60;
    printf("\nHour is %d",hour);
    printf("\nMin is %d",min);
    printf("\nSec is %d",remsec);
    getch();
}
```

**Output:->****Enter seconds : 3723****Hour is 1****Min is 2****Sec is 3****8.WAP to find number of month, days from given no of days.**

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int d, days, m;
    clrscr();
    printf("\n Enter no. of days : ");
    scanf("%d", &d);
    m=d/30;
    days=d%30;
    printf("\n No. of month %d : ",m);
    printf("\n No. of days %d : ",days);
    getch();
}
```

**Output :->****Enter no. of days : 366****No. of month : 12****No. of days : 6****9.WAP to find SIMPLE Interest. SI = (P \* R \* N) / 100**

```
#include<stdio.h>
#include<conio.h>
void main()
{
    float p,r,n;
    float SI;
    clrscr();
    printf("\n Enter principle amount : ");
    scanf("%f",&p);
    printf("\n Enter Rate of Interest : ");
    scanf("%f",&r);
    printf("\n Enter No. of years : ");
    scanf("%f",&n);
    SI = ((p*r*n)/100);
    printf("\n Simple Interest is :->%f",SI);
    getch();
}
```

**10. WAP to Interchange or SWAP two numbers using third variable.**

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int a,b,c;
    clrscr();
    printf("enter the value of a:");
    scanf("%d",&a);
    printf("enter the value of b:");
    scanf("%d",&b);
    c=a;
    a=b;
    b=c;
    printf("\nAfter swap the value of a is: %d ",a);
    printf("\nAfter swap the value of b is: %d ",b);
    getch();
}
```

**Output :--**

<b>Output :-&gt;</b> <b>Enter principle amount : 50000</b> <b>Enter Rate of Interest : 10</b> <b>Enter No. of years : 2</b> <b>Simple Interest is :-&gt;10000.000000</b>	<b>enter the value of a:35</b> <b>enter the value of b:98</b> <b>After swap the value of a is: 98</b> <b>After swap the value of b is: 35</b>
<b>11. WAP TO FIND Net Pay and Gross Pay from followings GP=Basic+4% DA + 10% HRA and NP=GP - 9%PF.</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     float basic,da,hra,gp,pf,np;     clrscr();     printf("\n Enter the basic salary : ");     scanf("%f",&amp;basic);     da=((basic*4)/100);     hra=((basic*10)/100);     printf("\n DA is %f",da);     printf("\n HRA is %f",hra);     gp=basic+da+hra;     pf=((basic*9)/100);     np=gp-pf;     printf("\n Net Pay is %f",np);     printf("\n Gross Pay %f",gp);     getch(); }</pre> <b>Output :--</b> <b>Enter the basic salary : 5000</b> <b>DA is 200.000000</b> <b>HRA is 500.000000</b> <b>Net Pay is 5250.000000</b> <b>Gross Pay is 5700.000000</b>	<b>12. WAP for Order of Precedence</b>
<b>13. WAP to find out whether given no. is odd or even. ( using IF )</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int number;     clrscr();     printf("\n Enter a no.");     scanf("%d", &amp;number);     if ( number % 2 ==1)         printf("odd");     else         printf("even");      getch(); }</pre> <b>Output:--&gt;</b> <b>Enter a no.23</b> <b>Odd</b>	<b>14. WAP to find out whether given no. is positive or negative.</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int number;     clrscr();     printf("\n Enter a no.");     scanf("%d", &amp;number);     if ( number &gt;0)         printf("positive");     else         printf("negative");      getch(); }</pre> <b>Output :--&gt;</b> <b>Enter a no.99</b> <b>positive</b> <b>Enter a no.-77</b> <b>Negative</b>
<b>15. WAP to find out maximum. ( using IF .. else if ... else if .... Else ... )</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int a,b;     clrscr();     printf("\n Enter two no's : ");     scanf("%d%d",&amp;a,&amp;b);     if(a&gt;b)         printf("a is max");     else if(b&gt;a)         printf("b is max");     else         printf("both are same");     getch(); }</pre> <b>Output :--&gt;</b>	<b>16. WAP to find out grade from inputted marks.</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int m1,m2,m3,total=0; float avg=0;     clrscr();     printf("\n Enter m1,m2,m3 between 1 to 100: ");     scanf("%d%d%d",&amp;m1,&amp;m2,&amp;m3);     total=m1+m2+m3;     printf("\nTotal is %d",total);     avg=(float)total/3;     printf("\nAverage is %f",avg);     printf("\nGrade is : ");     if(avg&gt;=70)         printf("\tA grade");     else if(avg&gt;=60 )         printf("\tB grade");     else if(avg&gt;=50 )         printf("\tC grade"); }</pre>

<p><b>Enter two no's : 23</b>  <b>43</b>  <b>b is max</b></p>	<pre>else     printf("\tFail"); getch(); }</pre> <p><b>Output :</b>  <b>Enter m1,m2,m3 between 1 to 100: 78</b>  <b>65</b>  <b>79</b>  <b>Total is 222</b>  <b>Average is 74.000000</b>  <b>Grade is : A grade</b></p>
<p><b>17. WAP a program of nested if else.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; Void main() { clrscr(); int a,b,c; printf("Enter a,b,c"); scanf("%d %d %d",&amp;a,&amp;b,&amp;c); if(a&gt;b) {  If(a&gt;c) { Printf("a is biggest"); } else { Printf("c is biggest"); } } else { If(b&gt;c) { Printf("b is biggest"); } else { Printf("c is biggest"); } } getch(); }</pre> <p><b>Output:-</b>  <b>Enter a,b,c;</b>  <b>25,20,15</b>  <b>a is biggest</b></p>	

**18. WAP to find out grade from inputted marks ( use of logical && operator )**

```
#include<stdio.h>
#include<conio.h>
void main()
{
int m1,m2,m3,total=0; float avg=0;
clrscr();
printf("\n Enter m1,m2,m3 between 1 to 100: ");
scanf("%d%d%d",&m1,&m2,&m3);
total=m1+m2+m3;
avg=(float)total/3;

printf("\nTotal \t\t: %d",total);
printf("\nAverage \t\t: %f",avg);

if(m1>=35 && m2>=35 && m3 >=35)
{
    Printf("\nstatus = Pass");
    if(avg>=70)
        printf("\ngrade = 'A' ");
    else if(avg>=60 )
        printf("\ngrade = 'B' ");
    else if(avg>=50 )
        printf("\ngrade = 'C' ");
    else
        printf("\ngrade = 'D' ");
}
else
{
    printf("\nStatus = Fail \ngrade = 'NA' ");
}
getch();
}
```

**Output :****Enter m1,m2,m3 between 1 to 100: 78****65****79**

**Total : 222**  
**Average : 74.000000**  
**Status : Pass**  
**Grade is : A**

**19. Write a program to find maximum of 2 numbers using Ternary Operator.**

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n1, n2, max;

printf("enter the two value : ");

scanf("%d %d",&n1,&n2);

max = (n1 > n2) ? n1 : n2 ;

printf("Maximum from %d and %d is %d ",n1, n2, max);

getch();
}
```

**Output:-****Enter the two value : 15,20****Maximum from 15 and 20 is 20****20. WAP to find maximum of 3 numbers using Ternary Operator.**

```
#include <stdio.h>
main()
{
int n1 , n2, n3, max;
printf("enter the 3 values : ");
scanf("%d %d %d",&n1, &n2 , &n3);
max = (n1 > n2) ? (( n1 > n3 ) ? n1 : n3 ) : ( ( n2>n3 ) ? n2 : n3)
;
printf("Maximum value from %d , %d and %d is %d " ,n1 , n2, n3 ,
max);
getch();
}
```

**Output:-****Enter the 3 values : 10,15,20****Maximum value from 10,15 and 20 is 20.**

**21. WAP to check whether inputted character is either digit or not. Print appropriate message.**

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char ch;
clrscr();
printf("\n Enter any character :- ");
ch = getchar();
if(ch>=48 && ch<=57)
{
printf("\nCh is Digit");
}
else
{
printf("\nCh is Not Digit");
}
getch();
}
/*
Output: 1
Enter any character :- A
Ch is Not Digit
Output: 2
Enter any character :- 1
Ch is Digit
*/
```

**22. WAP to check whether inputted character is Alphabet or not.**

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char ch;
clrscr();
printf("\n Enter any character :- ");
ch = getchar();
if(ch>=65 && ch<=90 || ch>=97 && ch<=122)
{
printf("\n Ch is Alphabet");
}
else
{
printf("\n Not Alphabet");
}
getch();
}
/*
Output:
Enter any character :- K
Ch is Alphabet
*/
```

**23. WAP to check whether inputted character is lowercase or not. If it is lowercase convert it into uppercase letter.**

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char ch,ch1;
clrscr();
printf("\n Enter any character :- ");
ch = getchar();
if(ch>=97 && ch<=122)
{
printf("\n Ch is lower case");
}
else
{
printf("\n Not lower case");
}
if(ch>=65 && ch<=90)
{
ch1=ch+32;
printf("\nChar %c is in lower case",ch1);
}
getch();
}
/*
Output:
Enter any character :- M
Not lower case
Char m is in lower case */
```

**24. WAP to check whether inputted character is uppercase or not. If it is uppercase convert it to lowercase letter.**

```
#include<stdio.h>
#include<conio.h>
#include<ctype.h>
void main()
{
char ch,ch1;
clrscr();
printf("\n Enter any character :- ");
ch = getchar();
if(ch>=65 && ch<=90)
{
printf("\n Ch is UPPER case");
}
else
{
printf("\n Not Upper case");
}
if(ch>=97 && ch<=122)
{
ch1=ch-32;
printf("\nCh %c is in lower case",ch1);
}
getch();
}
/*
Output :
Enter any character :- f
Not Upper Case
Ch F is in upper case */
```

## \*\*\*\*\* SWITCHCASE \*\*\*\*\*

**25. Get character as input and find whether it is consonant or vowel using IF condition**

```
#include<stdio.h>
#include<conio.h>
void main()
{
char letter;
clrscr();
```

**26. Get character as input and check whether vowel / consonant Using SWITCH CASE**

```
#include<stdio.h>
void main()
{
char letter;
clrscr();
printf("\n Enter any character : ");
```

<pre> printf("\n Enter any character : "); scanf("%c",&amp;letter); if(letter=='a'    letter=='e'    letter=='i'    letter=='o'    letter=='u')     printf("Letter is vowel"); else     printf("Letter is Consonant"); getch(); } <b>Output:--</b> <b>Enter any character : a</b> <b>Letter is vowel</b> </pre>	<pre> scanf("%c",&amp;letter); switch (letter) {     case 'a':     case 'e':     case 'i':     case 'o':     case 'u': printf ("Letter is vowel " );     break;     default : printf("Letter is consonant ");     break; } getch(); } <b>Output :-</b> <b>Enter any character : c</b> <b>Letter is consonant</b> </pre>
<p><b>27. Write a menu driven program to perform arithmetic operations Using Switch Case</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; main() {     int option , n1 , n2 ;     clrscr();     printf("1. Add \n");     printf("2. Subtract \n");     printf("3. Multiply \n");     printf("4. Division \n");     printf("Enter option from menu 1 - 4 : ");     scanf("%d",&amp;option);     printf("Enter two numbers : ");     scanf("%d %d",&amp;n1 , &amp;n2);     switch (option)     {         case 1 :    printf("Answer is %d",n1 + n2);                     break;         case 2 :    printf("Answer is %d",n1 - n2);                     break;         case 3 :    printf("Answer is %d", n1 * n2);                     break;         case 4 :    printf("Answer is %d", n1 / n2);                     break;         default :    break;     }     getch(); } <b>Output :-</b> <b>1. Add</b> <b>2. Subtract</b> <b>3. Multiply</b> <b>4. Division</b> <b>Enter option from menu 1 - 4 :</b> <b>Enter two numbers : 15 20</b> <b>1</b> <b>Answer is 35</b> </pre>	<p><b>28. WAP to check whether entered no. is between 1-5 , 6-10 or greater than 10.</b></p> <pre> #include&lt;stdio.h&gt; void main() {     int number;     clrscr();     printf("\n Enter any number : ");     scanf("%d",&amp;number);     switch (number)     {         case 1:         case 2 :         case 3:         case 4:         case 5: printf ("Between 1 - 5" );         break;         case 6:         case 7 :         case 8:         case 9:         case 10: printf ("Between 6 - 10" );         break;          default : printf("Greater than 10");         break;     }     getch(); } <b>Output:-</b> <b>Enter any number : 5</b> <b>Between 1 - 5</b> </pre>
<p><b>29. Write switch case for 1 for One, 2 for Two.</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; Void main() {     clrscr();     int no;     printf("Enter no between 1 to 5");     scanf("%d",&amp;no);     switch(no)     {         case 1:printf("One");                 break;         case 2:printf("Two");                 break;         case 3:printf("Three");                 break;         case 4:printf("Four"); </pre>	

```
break;
case 5:printf("Five");
break;
default:printf("Out Of Range");

};
}
```

**Output:-**  
**Enter no between 1 to 5**  
**4**  
**Four**

\*\*\*\*\* **LOOPS** \*\*\*\*\*

## While Loop

### 30. WAP Program to print 1 to 10.

```
#include<stdio.h>
#include<conio.h>
Void main()
{
int i;
clrscr();
while(i<=10)
{
printf("%d\t",i);
i++;
}
getch();
}
```

**Output:-**  
**1 2 3 4 5 6 7 8 9 10**

### 31. WAP Program sum of 1 to 10.

```
#include<stdio.h>
#include<conio.h>
Void main()
{
int i,sum=0;
clrscr();
while(i<=10)
{
printf("%d\t",i);
sum=sum+I;
i++;
}
Printf("%d",sum);
getch();
}
```

**Output:-**  
**1 2 3 4 5 6 7 8 9 10**

**55**

### 32.WAP to find power of a given number

```
#include<stdio.h>
#include<conio.h>
void main()
{
int e, b, m=1,i;
clrscr();
printf("\nEnter number & Power :");
scanf("%d%d",&b,&e);
i=1;
while(i<=e)
{
m=m*b;
i++;
}
printf("Result of power is : %d ",m);
getch();
}
```

**Output :--**  
**Enter number & Power :2**  
**5**  
**Result of power : 32**

### 33.WAP to find factorial of a given number

```
#include<stdio.h>
#include<conio.h>
void main()
{
int no,f=1,i;
clrscr();
printf("\nEnter the no");
scanf("%d",&no);
i = 1;
while(i<=no)
{
f = f * i;
i++;
}

printf("\n The factorial is%d",f);
getch();
}
```

**Output:--**  
**Enter the no:5**  
**The factorial is 120**

### 34. WAP check the no. Armstrong or not

```
#include<stdio.h>
#include<conio.h>
void main()
{
int no,i,sum=0,k;
clrscr();
printf("\n Enter one no.: ");
scanf("%d",&no);
k=no;
```

### 35.WAP to print whether no. is Palindrome or not

```
#include<stdio.h>
#include<conio.h>
void main()
{
int no,no1,sum=0;
int i;
clrscr();
printf("\n Enter a no.: ");
scanf("%d",&no);
```



<pre>while(no&gt;0) {     i=no%10;     sum=sum+(i*i*i);     no=no/10; } if(sum==k)     printf("\nIt is armstrong no."); else     printf("\nIt is not armstrong no."); getch(); }</pre> <p><b>Output:--</b>  <b>Enter one no.: 153</b>  <b>It is armstrong no.</b></p>	<pre>no1=no; while(no&gt;0) {     i=no%10;     sum=(sum*10)+i;     no=no/10; } if(sum==no1)     printf("palindrome no."); else     printf("Not palindrome no."); getch(); }</pre> <p><b>Output :--</b>  <b>Enter a no.: 1221</b>  <b>pelindrome no.</b></p>
<p><b>36. WAP to check the no. is Twin or not.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,m=1,sum=0;     int i;     clrscr();     printf("\n Enter a no.: ");     scanf("%d",&amp;no);     while(no&gt;0)     {         i=no%10;         sum=sum+i;         m=m*i;         no=no/10;     }     if(sum==m)         printf("Twin no.");     else         printf("Not Twin no."); getch(); }</pre> <p><b>Output:--</b>  <b>Enter a no.: 123</b>  <b>Twin no.</b></p>	<p><b>37.WAP to print Fibonacci Series</b></p> <pre>#include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() {     int i,p=0,n=1,a;     clrscr();     printf("\n %d,%d,",p,n);     i=1;     while(i&lt;=15)     {         a=p+n;         printf("%d,",a);         p=n;         n=a;         i++;     }     getch(); }</pre> <p><b>Output:--</b>  <b>0,1,1,2,3,5,8,13,21,34,55,89,144,233,377,610,987,</b></p>
<p><b>38. WAP to print reverse no.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,no1,sum=0;     int i;     clrscr();     printf("\n Enter a no.: ");     scanf("%d",&amp;no);     no1=no;     while(no&gt;0)     {         i=no%10;         printf("%d",i);         no=no/10;     } getch(); }</pre>	
<p><b>39. WAP to printing Reverse no of given number.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,no1,sum=0;     int i;     clrscr();     printf("\n Enter a no.: ");     scanf("%d",&amp;no);     no1=no;     while(no&gt;0) </pre>	<p><b>40. WAP to find no. of digits.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() {     int num;     int i=0;     clrscr();     printf("Enter the digit\n");     scanf("%d",&amp;num);     while(num!=0) </pre>

<pre> {     i=no%10;     sum=(sum*10)+i;     no=no/10; } printf("Reverse Number: -%d",sum); getch(); } <b>Output :--</b> <b>Enter a no.: 12</b> <b>Reverse Number:-21</b> </pre>	<pre> {     num=num/10;     ++i; } printf("Length=%d",i); getch(); } <b>Output:-</b> <b>Enter the digit 1567</b> <b>Length= 4</b> </pre>
<p><b>41. WAP to find sum of digit.</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,sum=0,rem=0;     clrscr();     printf("\nEnter a Number: ");     scanf("%d",&amp;no);     while(no&gt;0)     {         rem=no%10;         sum=sum+rem;         no=no/10;     }     printf("\nSum of digits of a number: %d",sum);     getch(); } <b>Output:-</b> <b>Enter a Number:15</b> <b>Sum of digits of a number:6</b> </pre>	<p><b>42. WAP to find sum of odd digit of entered digit.</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,sum=0,rem=0;     clrscr();     printf("\nEnter a Number: ");     scanf("%d",&amp;no);     while(no&gt;0)     {         rem=no%10;         if(rem%2!=0)         {             sum=sum+rem;         }         no=no/10;     }     printf("\nSum of Odd digits of a number: %d",sum);     getch(); } <b>Output:-</b> <b>Enter a Number:1567</b> <b>Sum of Odd digits of a number:8</b> </pre>
<p><b>DO.... While Loop</b></p>	
<p><b>43.WAP to find power of a given number</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int e, b, m=1,i;     clrscr();     printf("\nEnter number &amp; Power :");     scanf("%d%d",&amp;b,&amp;e);     i=1;     do     {         m=m*b;         i++;     } while(i&lt;=e);      printf("Result of power is : %d ",m);     getch(); } <b>Output :--</b> <b>Enter number &amp; Power :2</b> <b>5</b> <b>Result of power : 32</b> </pre>	<p><b>44.WAP to find factorial of a given number</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,f=1,i;     clrscr();     printf("\nEnter the no");     scanf("%d",&amp;no);     i = 1;     do     {         f = f * i;         i++;     } while(i&lt;=no);      printf("\n The factorial is%d",f);     getch(); } <b>Output:--</b> <b>Enter the no:5</b> <b>The factorial is 120</b> </pre>
<p><b>45.WAP to check the no. is Twin or not. Using Do ... While Loop</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,m=1,sum=0;     int i;     clrscr();     printf("\n Enter a no.: ");     scanf("%d",&amp;no);     do </pre>	<p><b>46.WAP to print Palindrome using Do ... While Loop</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,no1,sum=0;     int i;     clrscr();     printf("\n Enter a no.: ");     scanf("%d",&amp;no);     no1=no;     do </pre>

<pre> {     i=no%10;     sum=sum+i;     m=m*i;     no=no/10; } while(no&gt;0);  if(sum==m)     printf("Twin no."); else     printf("Not Twin no.");  getch(); } <b>Output:--</b> <b>Enter a no.: 123</b> <b>Twin no.</b> </pre>	<pre> {     i=no%10;     sum=(sum*10)+i;     no=no/10; } while(no&gt;0);  if(sum==no1)     printf("palindrome no."); else     printf("Not palindrome no.");  getch(); } <b>Output :--</b> <b>Enter a no.: 1221</b> <b>pelindrome no.</b> </pre>
<p><b>FOR ... Loop</b></p>	
<p><b>47.WAP to print 1 to 100 (ascending ) &amp; 100 to 1 ( reverse )</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() {     int i;     clrscr();     printf("\nthe numbers between 1 to 100\n");     for(i=1 ; i &lt;= 100; i++)         { printf("%d ",i); }     printf("\nthe numbers between 100 to 1\n");     for(i=100 ; i &gt;= 1; i--)         { printf("%d ",i); }     getch(); } </pre> <p><b>Output :--</b>  <b>the numbers between 1 to 100</b>  <b>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18</b>  <b>19 20 21 22 23 24 25 26 27 28 29 30 31 32 33</b>  <b>34 35 36 37 38 39 40 41 42 43 44 45 46 47 48</b>  <b>49 50 51 52 53 54 55 56 57 58 59 60 61 62 63</b>  <b>64 65 66 67 68 69 70 71 72 73 74 75 76 77 78</b>  <b>79 80 81 82 83 84 85 86 87 88 89 90 91 92 93</b>  <b>94 95 96 97 98 99 100</b>  <b>the numbers between 100 to 1</b>  <b>100 99 98 97 96 95 94 93 92 91 90 89 88 87 86</b>  <b>85 84 83 82 81 80 79 78 77 76 75 74 73 72 71</b>  <b>70 69 68 67 66 65 64 63 62 61 60 59 58 57 56</b>  <b>55 54 53 52 51 50 49 48 47 46 45 44 43 42 41</b>  <b>40 39 38 37 36 35 34 33 32 31 30 29 28 27 26</b>  <b>25 24 23 22 21 20 19 18 17 16 15 14 13 12 11</b>  <b>10 9 8 7 6 5 4 3 2 1</b></p>	<p><b>48.WAP find Factorial of a given number</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,f=1,i;     clrscr();     printf("\nEnter the no");     scanf("%d",&amp;no);     for(i=1;i&lt;=no;i++)         { f = f * i; }      printf("\n The factorial is %d",f);     getch(); } </pre> <p><b>Output:--</b>  <b>Enter the no:5</b>  <b>The factorial is 120</b></p>
<p><b>49.WAP to find Reverse no.</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     int no,i=1,res=0;     clrscr();     printf("enter the no");     scanf("%d",&amp;no);     for( ; no&gt;0 ; )     {         i=no%10;         res=(res*10)+i;         no=no/10;     }     printf("the reverse no is %d",res);     getch(); } </pre> <p><b>Output:--</b>  <b>enter the no. :125</b>  <b>the reverse no. is 521</b></p>	<p><b>50. WAP to print no's between no1. To no2.</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() {     int i,no1,no2;     clrscr();     printf("\n Enter the first no.");     scanf("%d",&amp;no1);     printf("\n Enter the Second no.");     scanf("%d",&amp;no2);     for(i=no1;i&lt;=no2;i++)         printf("%d ",i);     getch(); } </pre> <p><b>Output:--</b>  <b>Enter the first no.10</b>  <b>Enter the Second no.20</b>  <b>10 11 12 13 14 15 16 17 18 19 20</b></p>

<p><b>51.WAP to print Only even no's between two no's</b></p> <pre>#include &lt;stdio.h&gt; void main() { int i,no1,no2; clrscr(); printf("\n Enter the first no."); scanf("%d",&amp;no1); printf("\n Enter the Second no."); scanf("%d",&amp;no2); for(i=no1;i&lt;=no2;i++) { if(i%2==0) printf("%d ",i);  } getch(); }</pre> <p><b>Output:--</b>  <b>Enter the first no.10</b>  <b>Enter the Second no.20</b>  <b>10 12 14 16 18 20</b></p>	<p><b>52.WAP to print Table of any entered number</b></p> <pre>#include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() { int i,no; clrscr(); printf("\n Enter a no."); scanf("%d",&amp;no); for(i=1;i&lt;=10;i++) { printf("\n%d*%d=%d",no,i,i*no); } getch(); }</pre> <p><b>Output:--</b>  <b>Enter a no.5</b>  <b>5*1=5</b>  <b>5*2=10</b>  <b>5*3=15</b>  <b>5*4=20</b>  <b>5*5=25</b>  <b>5*6=30</b>  <b>5*7=35</b>  <b>5*8=40</b>  <b>5*9=45</b>  <b>5*10=50</b></p>
<p><b>53.WAP to check whether no. is prime or not</b></p> <pre>void main() { int no,i,f=1; clrscr();  printf("Enter No. : "); scanf("%d",&amp;no); for( i=2; i &lt; no ; j++) { if (no % i ==0) { f = 0; break; } } If ( f ==1 ) printf("No. is Prime number "); else printf("No. is not Prime number"); getch(); }</pre> <p><b>Output :-</b>  <b>Enter No. : 5</b>  <b>No. is Prime number</b></p>	<p><b>54. WAP to print series as <math>1 + x^1 + x^2 + x^3 + x^4 + \dots + x^n</math></b></p> <pre>void main() { int t,i,x,n,sum=1,i,j; printf("Enter value of x and n :"); scanf("%d%d",&amp;x,&amp;n); for(i=1;i&lt;=n;i++) { t=1; for(j=1;j&lt;=i;j++) { t=t*x; } sum = sum + t; } printf("Sum is %d",sum); getch(); }</pre> <p><b>Output:-</b>  <b>Enter value of x and n: 2, 2</b>  <b>Sum is 7.</b></p>
<p><b>55.WAP to print series as 1-3+5-7+9.....n</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; main() { int n, i, f = 0, sum =0; printf("Enter one value : ") ; scanf("%d",&amp;n); for(i=1;i&lt;=n;i=i+2) { If (f==1) { sum = sum + i; f=0; } else { sum = sum - i; f = 1; } } printf("Sum of series is %d",sum); getch(); }</pre> <p><b>Output :-</b></p>	<p><b>56. WAP to print series <math>1 + x! + \dots + n!</math></b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,m=1,n =5, sum=0; clrscr(); for(i=1;i&lt;=n;i++) { m=1; for(j=1;j&lt;=i;j++) { m=m*j; } sum = sum + m; } printf("Sum of all factorials is %d",sum); getch(); }</pre> <p><b>Output :-</b>  <b>Sum of all factorials is 153</b></p>

<b>Enter one value : 7</b> <b>Sum of series is 4</b>			
<b>57.WAP to print following triangle</b>			
<b>1.</b> * ** *** ****	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d", &amp;n); printf("\n");  for (i=1;i&lt;=n;i++) { for (j=1;j&lt;=i;j++) printf("*"); printf("\n"); } getch(); }</pre>	<b>2.</b> 1 12 123 1234	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr(); printf("Enter a number to generate Series "); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { for (j=1;j&lt;=i;j++) printf("%d",j); printf("\n"); } getch(); }</pre>
<b>3.</b> 1 22 333 4444	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a number to generate Series"); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { for (j=1;j&lt;=i;j++) printf("%d",i); printf("\n"); } getch(); }</pre>	<b>4.</b> 1 2 3 4 5 6 7 8 9 10	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,k=1,n; clrscr();  printf("Enter a number to Generate series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) {for (j=1;j&lt;=i;j++) { printf("%d ",k); k++; } printf("\n"); } getch(); }</pre>
<b>5.</b> * * * * * * * * * *	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=n;j&gt;=i;j--) printf("*"); } getch(); }</pre>	<b>6.</b> 1234 123 12 1	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr(); printf("Enter Number to Generate Series "); scanf("%d", &amp;n);  for (i=n;i&gt;=1;i--) { for (j=1;j&lt;=i;j++) printf("%d",j); printf("\n"); } getch(); }</pre>
<b>7.</b> 1234 234 34 4	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d",&amp;n);</pre>	<b>8.</b> 4321 321 21 1	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr(); printf("Enter a Number to Generate a Series "); scanf("%d",&amp;n);  for (i=n;i&gt;=1;i--)</pre>

	<pre> for (i=1;i&lt;=n;i++) { for (j=i;j&lt;=n;j++) printf("%d",j); printf("\n"); } getch(); } </pre>		<pre> { for (j=i;j&gt;=1;j--) printf("%d",j); printf("\n"); } getch(); } </pre>
<b>9.</b> 4321 432 43 4	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a number to Generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { for (j=n;j&gt;=i;j--) printf("%d",j); printf("\n"); } getch(); } </pre>	<b>10.</b> 4 43 432 4321	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=n;i&gt;=1;i--) { for (j=n;j&gt;=i;j--) printf("%d",j); printf("\n"); } getch(); } </pre>
<b>11.</b> 4 34 234 1234	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d",&amp;n);  for (i=n;i&gt;=1;i--) { printf("\n"); for (j=i;j&lt;=n;j++) printf("%d",j); } getch(); } </pre>	<b>12.</b> 1 21 321 4321	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=i;j&gt;=1;j--) printf("%d",j); } getch(); } </pre>
<b>13.</b> 1 01 010 1010	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n,k=1; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=1;j&lt;=i;j++) { printf("%d",k%2); k++; } } getch(); } </pre>	<b>14.</b> 12345 1234 123 12 1	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to Generae a Series "); scanf("%d", &amp;n);  for (i=n;i&gt;=1;i--) { printf("\n"); for (j=n;j&gt;i;j--) printf(" "); for (j=1;j&lt;=i;j++) printf("%d ",j); } getch(); } </pre>
<b>15.</b> 1 12 123	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() </pre>	<b>16.</b> * ** ***	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() </pre>

<pre>1234 12345</pre>	<pre>{ int i,j,n; clrscr();  printf("Enter a number to generate a Series "); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=n; j&gt;i;j--) printf(" "); for (j=1;j&lt;=i;j++) printf("%d ",j);  } getch(); }</pre>	<pre>**** *****</pre>	<pre>{ int i,j,n; clrscr();  printf("Enter a number to Generate a series "); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=n;j&gt;i;j--) printf(" "); for (j=1;j&lt;=i;j++) printf("* "); } getch(); }</pre>
<pre>17. * *** ***** *****</pre>	<pre>#include&lt;stdio.h&gt; #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n, Flag=1; clrscr();  printf("Enter a Number to Generate a Series "); scanf("%d", &amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=n;j&gt;i;j--) printf(" "); Flag=1; for (j=1;j&gt;=1;) { printf("* ");  if (j == i ) Flag =0; if ( Flag == 1) j++; else j--;  //if (Flag==1 &amp;&amp; j == i ) Flag=0; } } getch(); }</pre>	<pre>18. 1 01 101 0101 10101</pre>	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,k=1,n; clrscr();  printf("Enter a number to Generate series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { for (j=i;j&gt;=1;j--) printf("%d ",j%2); printf("\n"); } getch(); }</pre>
<pre>19. 1 2 1 3 2 1</pre>	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { for (j=n;j&gt;i;j--) printf(" "); for (j=i;j&gt;=1;j--) printf("%d ",j); printf("\n"); } getch(); }</pre>	<pre>20. A AB ABC ABCD ABCDE</pre>	<pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int n,i,j; clrscr(); for(i=65;i&lt;=69;i++) { for(j=65;j&lt;=i;j++) { printf("%c",j); } printf("\n"); } getch(); }  ----- OR ----- #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() {</pre>

			<pre> int i,j,n; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=1;j&lt;=i;j++) printf("%c",j+'A'-1); } getch(); } </pre>
<b>21.</b> ABCDE ABCD ABC AB A	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int n,i,j; clrscr(); for(i=69;i&gt;=65;i--) { for(j=65;j&lt;=i;j++) { printf("%c",j); } printf("\n"); } getch(); }  ----- OR ----- #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=n;i&gt;=1;i--) { printf("\n"); for (j=1;j&lt;=i;j++) printf("%c",j+'A'-1); } getch(); } </pre>	<b>22.</b> ABCDE BCDE CDE DE E	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int n ,i ,j ; clrscr(); for(i=69;i&gt;65;i--) { for(j=+1;j&lt;=i;j++) { printf("%c",j); } printf("\n"); } getch(); }  ----- OR ----- #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); for (j=i;j&lt;=n;j++) printf("%c",j+'A'-1); } getch(); } </pre>
<b>23.</b> <b>1</b> <b>12</b> <b>123</b> <b>12</b> <b>1</b>	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n, Flag=0; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=1;i&gt;=1;) { printf("\n"); for (j=n;j&gt;i;j--) printf(" "); for (j=1;j&lt;=i;j++) printf("%d ",j); if (i==n) Flag=1; if (Flag==0) i++; } </pre>	<b>24.</b> <b>1234321</b> <b>12 21</b> <b>1 1</b> <b>12 21</b> <b>1234321</b>	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n, Flag=0,Flag1=0; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=n;i&lt;=n;) { printf("\n"); Flag1=0; for (j=1;j&gt;=1;) { if ( j&lt;i    i == n) printf("%d",j); else printf(" "); if ( j == n) </pre>



	<pre> else i--; } getch(); } </pre>		<pre> Flag1=1; if (Flag1==0) j++; else j--; }  if ( i == 2) Flag=1; if (Flag == 0 ) i--; else i++; } getch(); } </pre>
<b>25.</b> <b>1</b> <b>121</b> <b>12321</b>	<pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { int i,j,n, Flag=0,Flag1=0; clrscr();  printf("Enter a Number to generate a Series "); scanf("%d",&amp;n);  for (i=1;i&lt;=n;i++) { printf("\n"); Flag1=0; for (j=1; j&lt;= (n-i); j++) printf(" "); for (j=1;j&gt;=1;) { printf("%d",j); if ( j == i ) Flag1=1; if (Flag1==0) j++; else j--; } } getch(); } </pre>		

\*\*\*\*\* **ARRAY** \*\*\*\*\*

<b>One dimensional array</b>	
<b>58.Simple Program to illustrate Array</b> <pre> void main() { int a[5] = {2, 10 ,7,9,11}; clrscr();  printf("Values of array are : "); printf("%d, %d, %d, %d, %d",a[0],a[1],a[2],a[3],a[4]);  getch(); } </pre> <b>Output :-</b> <b>2, 10 ,7, 9, 11</b>	<b>59.Program to Enter and print array elements</b> <pre> void main() { int a[5]; clrscr(); printf("Enter 5 Array values : "); scanf("%d%d%d%d%d", &amp;a[0],&amp;a[1],&amp;a[2],&amp;a[3],&amp;a[4]);  printf("Entered values of array are : %d,%d,%d,%d,%d ", a[0],a[1],a[2],a[3],a[4]); getch(); } </pre> <b>Output :-</b> <b>Enter 5 Array values : 10, 15, 20, 25, 30</b> <b>Entered values of array are : 10, 15, 20, 25, 30</b>
<b>60. WAP to Enter and print Array elements using for loop</b> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int arr[20],i,no; </pre>	<b>61. WAP to Enter and print Array elements in reverse order using for loop</b> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { </pre>

<pre>clrscr(); printf("Enter no of elements u want: max is 20 :"); scanf("%d",&amp;no); printf("enter %d values",no); for(i=0;i&lt;no;i++)     scanf("%d",&amp;arr[i]); printf("\nYour array is:"); for(i=0;i&lt;no;i++)     printf(" %d ",arr[i]); getch(); }</pre> <p><b>Output:--</b>  <b>Enter no of elements u want: max is 20 :5</b>  <b>10</b>  <b>20</b>  <b>30</b>  <b>40</b>  <b>50</b>  <b>Your array is: 10 20 30 40 50</b></p>	<pre>int arr[20],i,no; clrscr(); printf("Enter no of elements u want: max is 20 :"); scanf("%d",&amp;no); printf("enter %d values",no); for(i=0;i&lt;no;i++)     scanf("%d",&amp;arr[i]);  printf("\nYour reverse array is:"); for(i=no-1;i&gt;=0;i--)     printf(" %d ",arr[i]); getch(); }</pre> <p><b>Output:--</b>  <b>Enter no of elements u want: max is 20 :5</b>  <b>10</b>  <b>20</b>  <b>30</b>  <b>40</b>  <b>50</b>  <b>Your reverse array is: 50 40 30 20 10</b></p>
<p><b>62. WAP to print sum of all array elements</b></p> <pre>void main() { int a[5], i , sum=0; clrscr();  printf("Enter five values : "); for(i=0;i&lt;=4;i++) {     scanf("%d", &amp;a[i]); } printf("Here are values of array :"); for(i=0;i&lt;=4;i++) {     printf("%d,", a[i]);     sum = sum + a[i]; } printf("\n Sum is %d",sum); getch(); }</pre> <p><b>Output :</b>  <b>Enter five values : 2 1 3 4 5 2</b>  <b>Here are values of array :2,1,3,4,5,2</b>  <b>Sum is 17</b></p>	<p><b>63. WAP to copy contents of one array to another array.</b></p> <pre>void main() { int a[5] , b[5] , i ; clrscr(); printf("Enter five values : "); for(i=0;i&lt;=4;i++) {     scanf("%d",&amp;a[i]); }  printf("Copy array a to array b); for(i=0;i&lt;=4;i++) {     b[i] = a[i] ; }  printf("Content of array B are : "); for (i=0 ;i&lt;=4;i++)     printf("\n%d",b[i]);  getch(); }</pre> <p><b>Output:-</b>  <b>Enter five values : 10,15,20,25,30</b>  <b>Copy array a to array b</b>  <b>Content of array B are : 10,15,20 25,30</b></p>
<p><b>64. Sorting Array in Ascending order and storing values in same array.</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[5], i, j, temp; clrscr(); for(i=0;i&lt;=4;i++)     scanf("%d",&amp;a[i]); for(i=0;i&lt;=4;i++) {     for(j=i+1;j&lt;=4;j++)     {         if(a[i]&gt;a[j])         {             temp=a[i];             a[i]=a[j];             a[j]=temp;         }     } }  printf("Ascending order: "); for(i=0;i&lt;=4;i++)     printf("%d ",a[i]);</pre>	<p><b>65. Sorting Array in Descending Order and storing values in same array</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[5], i, j, temp; clrscr(); for(i=0;i&lt;=4;i++)     scanf("%d",&amp;a[i]); for(i=0;i&lt;=4;i++) {     for(j=i+1;j&lt;=4;j++)     {         if(a[i]&lt;a[j])         {             temp=a[i];             a[i]=a[j];             a[j]=temp;         }     } }  printf("Descending order: "); for(i=0;i&lt;=4;i++)     printf("%d ",a[i]);</pre>

<pre> getch(); } <b>Output:-</b> 55 66 99 44 11 <b>Ascending order: 11 44 55 66 99</b> </pre>	<pre> getch(); } <b>Output:-</b> 33 22 11 44 88 <b>Descending order: 88 44 33 22 11</b> </pre>
<p><b>66. Finding maximum from an array</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() { int a[5],max,i; clrscr(); printf("\nEnter 5 values :"); for(i=0; i&lt;=4; i++) { scanf("%d",&amp;a[i]); } max=a[0]; for(i=1;i&lt;=4;i++) { if(max&lt;a[i]) { max=a[i]; } } printf("Max is %d",max); getch(); } <b>Output:-</b> Enter 5 values :55 99 44 66 22 <b>Max is 99</b> </pre>	<p><b>67. Finding Minimum from an array</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; void main() { int a[5],min,i; clrscr(); printf("\nEnter 5 values :"); for(i=0; i&lt;=4; i++) { scanf("%d",&amp;a[i]); } min=a[0]; for(i=1;i&lt;=4;i++) { if(min&gt;a[i]) { min=a[i]; } } printf("Min is %d",min); getch(); } <b>Output:-</b> Enter 5 values :55 22 33 1 99 <b>Min is 1</b> </pre>
<p><b>68. Make Array in Reverse Order ( Reverse array elements and store reversed elements in same array)</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[5],i,j,temp; clrscr(); printf("\n Enter 5 values :"); for(i=0;i&lt;5;i++) scanf("%d",&amp;a[i]);  for(i=0,j=4;i&lt;5/2;i++,j--) { temp=a[i]; a[i]=a[j]; a[j]=temp; } for(i=0;i&lt;5;i++) { printf("%d ",a[i]); } getch(); } <b>Output:--</b> Enter 5 values :11 22 33 44 55 <b>55 44 33 22 11</b> </pre>	<p><b>69. Searching element from Array</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int i,,n,no[50],flag=0; clrscr(); printf("\n How many Elements u want to Enter :"); scanf("%d",&amp;n); printf("enter %d values",n); for(i=0;i&lt;n;i++) scanf("%d",&amp;no[i]);  printf("\n Enter the no u want to search :"); scanf("%d",&amp;m);  for(i=0;i&lt;n;i++) { if (no[i] == m ) { printf("Found  %d at position %d \n ",no[i],i+1); flag=0; break; } else flag =1; } if (flag==1) printf("Not Found "); getch(); } <b>Output:-</b> How many no's u want to Enter :5 Enter the sorted no's u want :11 22 </pre>

	<b>33</b> <b>44</b> <b>55</b> <b>Enter the no u want to search :44</b> <b>Found 44 at position 4</b>
<b>2. Two dimensional array</b>	
<b>70. Initialize Two dimensional array</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[3][2] = { {1,2} , { 5, 7} , { 7, 8 } } ; clrscr(); printf("Value of two dimensional array :"); printf("\n%d \t %d\n",a[0][0] , a[0][1]); printf("%d \t %d\n",a[1][0] , a[1][1]); printf("%d \t %d\n",a[2][0] , a[2][1]);  getch(); }</pre> <b>Output:-</b> <b>Value of two dimensional array :</b> <b>1 2</b> <b>5 7</b> <b>7 8</b>	<b>71. Printing &amp; scanning elements of two dimensional arrays</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[3][3]; int i,j; clrscr(); printf("Enter nine values :"); for(i=0;i&lt;=2;i++) { for(j=0;j&lt;=2;j++) { scanf("%d",&amp;a[i][j]); } }  printf("\nYour matrix is here : \n"); for(i=0;i&lt;=2;i++) { for(j=0;j&lt;=2;j++) { printf("%d\t",a[i][j]); } printf("\n"); }  getch(); }</pre> <b>Output:-</b> <b>Enter nine values :3</b> <b>2</b> <b>1</b> <b>6</b> <b>5</b> <b>4</b> <b>9</b> <b>8</b> <b>7</b> <b>Your matrix is here :</b> <b>3 2 1</b> <b>6 5 4</b> <b>9 8 7</b>
<b>72. Row wise sum of two dimensional arrays</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[3][4]; int i,j,sum=0,gt=0; clrscr(); printf("Enter 12 values :"); for(i=0;i&lt;=2;i++) { for(j=0;j&lt;=3;j++) { scanf("%d",&amp;a[i][j]); } }  printf("\nYour matrix is here : \n"); for(i=0;i&lt;=2;i++) { sum=0; for(j=0;j&lt;=3;j++) { printf("%d\t",a[i][j]); sum=sum+a[i][j]; } printf(" = %d\n",sum); }</pre>	<b>73. Finding Sum of two Matrices</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[2][2],b[2][2],c[2][2]; int i,j; clrscr(); printf("Enter array a :"); for(i=0;i&lt;=1;i++) { for(j=0;j&lt;=1;j++) { scanf("%d",&amp;a[i][j]); } }  printf("Enter array b :"); for(i=0;i&lt;=1;i++) { for(j=0;j&lt;=1;j++) { scanf("%d",&amp;b[i][j]); } }  printf("\n Sum of 2 array:\n"); for(i=0;i&lt;=1;i++)</pre>

<pre> gt=gt+sum; printf("\n"); } printf("\t\t\t\t = %d",gt); getch(); } <b>Output:</b> Enter 12 values :    1    1    1    1    1    1                    1    1    1    1    1    1  Your matrix is here : 1    1    1    1    = 4 1    1    1    1    = 4 1    1    1    1    = 4                         = 12 </pre>	<pre> { for(j=0;j&lt;=1;j++) { c[i][j]=a[i][j]+b[i][j]; printf("%d\t",c[i][j]); } printf("\n"); } getch(); } <b>Output:-</b> Enter array a : 2    2 2    2 Enter array b : 3    3 3    3 sum of 2 array: 5    5 5    5 </pre>
<p><b>74. Column wise sum of two dimensional arrays</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { int a[3][4]; int i,j,sum=0,gt=0; clrscr(); printf("Enter 12 values :"); for(i=0;i&lt;=2;i++) { for(j=0;j&lt;=3;j++) { scanf("%d",&amp;a[i][j]); } } printf("\nYour matrix is here : \n"); for(i=0;i&lt;=2;i++) { sum=0; for(j=0;j&lt;=3;j++) { printf("%d\t",a[i][j]); sum=sum+a[i][j]; } printf(" = %d\n\n",sum); gt=gt+sum; printf("\n"); } Printf("-----\n"); for(i=0;i&lt;=3;i++) { sum=0; for(j=0;j&lt;=2;j++) { sum=sum+a[j][i]; } printf(" = %d\t",sum);  printf("\t\t\t\t = %d",gt); getch(); } <b>Output:</b> Enter 12 values :    1    1    1    1    1    1                    1    1    1    1    1    1  Your matrix is here : 1    1    1    1    = 4 1    1    1    1    = 4 1    1    1    1    = 4 ----- 3    3    3    3    =12 </pre>	
<p><b>75. Finding Multiplication of two Matrices</b></p> <pre> #include&lt;stdio.h&gt; </pre>	<p><b>76. Transpose 2 x 2 Matrix</b></p> <pre> #include &lt;stdio.h&gt; </pre>

```
#include<conio.h>
void main()
{
int a[2][2],b[2][2],c[2][2];
int i,j, k;
clrscr();
printf("Enter array a :");
for(i=0;i<=1;i++)
{
for(j=0;j<=1;j++)
{
scanf("%d",&a[i][j]);
}
}

printf("Enter array b :");
for(i=0;i<=1;i++)
{
for(j=0;j<=1;j++)
{
scanf("%d",&b[i][j]);
}
}

printf("\n Multiplication of 2 array:\no");
for(i=0;i<=1;i++)
{
for(j=0;j<=1;j++)
{
c[i][j] = 0;
for(k=0;k<=1;k++)
{
c[i][j]=c[i][j]+(a[i][k] * b[k][j]);
}
}
}

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

getch();
}
```

**Output:-**  
**Enter array a :**  
2 2  
2 2  
**Enter array b :**  
3 3  
3 3  
**Multiplication of 2 array:**  
6 6  
6 6

```
#include<conio.h>
void main()
{
int a[2][2], b[2][2] , i , j;

clrscr();
printf("Enter array a : ");
for(i=0;i<=2;i++)
{
for(j=0;j<=2;j++)
scanf("%d",&a[i][j]);
}

printf("Transpose Matrix : ");
for(i=0;i<=2;i++)
{
for(j=0;j<=2;j++)
b[i][j] = a[j][i];
}

printf("Printing Transposed Matrix : ");
for(i=0;i<=2;i++)
{
for(j=0;j<=2;j++)
{
printf("%d\t",b[i][j]);
}
}

printf("\n");
}

getch();
}
```

**Output :-**  
**Enter array a :-**

1  
1  
2  
2  
3  
3  
3

**Transposed Matrix:Printing Transposed Matrix:**

1 2 1  
1 2 2  
2 3 3

## \*\*\*\*\* STRING \*\*\*\*\*

### 77.WAP to initialize and print string.

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char a[10]={‘hello’};
clrscr();

printf("Your String is : %s", a);
getch();
}
```

**Output:- Your String is : hello**

### 78.Getting value from user and printing

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
void main()
{
char a[10];
clrscr();
printf("Enter first string : ");
scanf("%s",a);
printf("Entered String is : %s", a);
getch();
}
```

**Output:-Enter first string: hello**

<p><b>79. Getting value from user and printing thru gets() and puts()</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; void main() { char a[10]; clrscr(); puts("Enter first string : "); gets(a); puts("Entered String is : "); puts( a); getch(); }</pre> <p><b>Output:-Enter first string : hello</b></p> <p><b>Entered String is : hello</b></p>	<p><b>80.WAP to find string length</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { char s[20]; int i,count = 0; clrscr(); printf("\n Enter one String\t"); scanf("%s",s); for(i=0;s[i]!='\0';i++) { count++; } printf("\nLength = %d",count); getch(); } /* <b>Output:-</b> Enter one String    ANANYA Length = 6 */</pre>
<p><b>81.WAP to convert string to uppercase</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { char s[20]; int i,j; clrscr(); printf("\n Enter one String in lowercase : "); gets(s); for(i=0;s[i]!='\0';i++) { if(s[i] &gt;= 97 &amp;&amp; s[i]&lt;=122) s[i]=s[i]-32; } printf("\nYour string is here %s",s); getch(); } /* <b>Output :</b> Enter one String in lowercase : ananya Your string is here ANANYA */</pre>	<p><b>82.WAP to convert string to lowercase</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { char s[20]; int i,j; clrscr(); printf("\n Enter one String in uppercase : "); gets(s); for(i=0;s[i]!='\0';i++) { if(s[i] &gt;= 65 &amp;&amp; s[i]&lt;=90) s[i]=s[i]+32; } printf("\nYour string is here %s",s); getch(); } /* <b>Output:</b> Enter one String in uppercase : ANANYA Your string is here ananya */</pre>
<p><b>83.WAP to copy string</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt;  void main() { char a[10],b[10]; int i; clrscr(); printf("\n Enter string: "); gets(a); for(i=0;a[i]!='\0';i++) { b[i]=a[i]; } b[i]='\0'; //printf("\n string copied...\n"); printf("\n %s is in b",b); getch(); } /* <b>Enter string: ANANYA KOLKARI</b> <b>ANANYA KOLKARI is in b</b> */</pre>	<p><b>84. WAP to concatenate string</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; void main() { char a[10],b[10],c[20]; int i,j; clrscr(); gets(a); gets(b); for(i=0;a[i]!='\0';i++) { c[i]=a[i]; } c[i]=' '; i++; for(j=0;b[j]!='\0';j++) { c[i]=b[j]; i++; } C[i]='\0'; printf("\n Answer = %s",c); getch(); }</pre>

	<pre> /* <b>Output:-</b> <b>ANANYA</b> <b>KOLKARI</b> <b>Answer = KOLKARI ANANYA</b> */ </pre>
<p><b>85. WAP to reverse string</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; void main() { char a[10]; int i,j,len=0; char temp; clrscr(); printf("\n Enter one String : "); gets(a); for(i=0;a[i]!='\0';i++) { len++; } j=len-1; for(i=0;i&lt;len/2;i++,j--) { temp=a[i]; a[i]=a[j]; a[j]=temp; } printf("\n Reverse a is = %s",a); getch(); } /* <b>Output :</b> <b>Enter one String : ANANYA</b> <b>Reverse a is = aynana</b> */ </pre>	<p><b>86.WAP to compare two strings</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; void main() { char a[10],b[10],c[10]; int i,len; clrscr(); gets(a); gets(b); i = strcmp(a,b); if(i==0) printf("\n Both strings R equal"); else printf("\n Both strings r not equal"); getch(); } /* Output 1: ANANYA ANANYA Both strings R equal  Output 2: ANANYA ANANYA1 Both strings r not equal */ <b>Do not use inbuilt function</b> </pre>
<p><b>87.WAP using various inbuilt string functions</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; void main() { char a[10],b[10],c[10]; int i,len; clrscr(); puts("Enter first string"); gets(a); puts("Second first string"); gets(b); len = strlen(a); printf("\n Length of a = %d ",len); strupr(a); printf("\n Upper case a = %s",a); strlwr(b); printf("\n Lower case b = %s",b); strrev(a); printf("\n Reverse a = %s",a); strcpy(c,a); printf("\n %s is in c",c); strcat(c,b); /*printf("\n Concated string = %s",c); i = strcmp(a,b); if(i==0) printf("\n Both strings are equal"); else printf("\n Both strings are not equal");*/ getch(); } /* <b>Output:--</b> <b>Enter first string</b> <b>ananya</b> <b>Second first string</b> </pre>	<p><b>88.WAP to convert string to tOGtIE case</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { char s[20]; int i,j; clrscr(); printf("\n Enter one String : "); gets(s); for(i=0;s[i]!='\0';i++) { if(s[i] &gt;= 65 &amp;&amp; s[i]&lt;=90) s[i]=s[i]+32; else if(s[i]&gt;=97 &amp;&amp; s[i]&lt;=122) s[i] = s[i] - 32; } printf("\nYour string is here %s",s); getch(); } /* <b>Output:</b> <b>Enter one String : ANANYA</b> <b>Your string is here ananya</b> */ </pre>



<b>Karan</b>  <b>Length of a = 6</b> <b>Upper case a = ANANYA</b> <b>Lower case b = karan</b> <b>Reverse a = AYNANA</b> <b>AYNANA is in c</b> <b>Concatenated string = AYNANAKaran</b> <b>Both strings are not equal</b> <b>*/</b>	
<b>89.WAP to print its statistics as</b> <b>Total Digits :</b> <b>Total upper letters :</b> <b>Total Lower letters :</b> <b>Total Special letters :</b> <b>Total Words :</b> <b>Total Spaces :</b> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main() { char s[50]; int i,j; int upper=0 , lower=0 , space=0, word=0, special=0; int digit=0; clrscr(); printf("\n Enter a String : "); gets(s); for(i=0;s[i]!='\0';i++) { if(s[i] &gt;= 65 &amp;&amp; s[i]&lt;=90) upper++; else if(s[i]&gt;=97 &amp;&amp; s[i]&lt;=122) lower++; else if(s[i]&gt;=47 &amp;&amp; s[i]&lt;=57) digit++; else if ( s[i] == ' ') space++; else special++; } printf("\nYour string is here %s",s); printf("\nTotal Digits : %d",digit); printf("\nTotal uppers : %d",upper); printf("\nTotal lowers : %d",lower); printf("\nTotal spaces : %d",space); printf("\nTotal special : %d",special); printf("\nTotal words : %d",space+1); getch(); }</pre> <b>Output:-</b> <b>Enter a String : hello 123</b> <b>Total Digits : 3</b> <b>Total uppers: 0</b> <b>Total lowers : 5</b> <b>Total spaces : 1</b> <b>Total special : 0</b> <b>Total words : 2</b>	

## \*\*\*\*\* FUNCTION \*\*\*\*\*

<b>90.Function to sum two numbers (w/o return type w/o arg. )</b> <pre>void sum(); void main() { clrscr(); sum();    /* calling function sum*/ getch(); } void sum() { int a, b, c;</pre>	<b>91.Function to find Factorial (w/o return type w/o arg. )</b> <pre>void fact(); void main() { clrscr(); fact();    /* calling function factorial */ getch(); } void fact() {</pre>
--	--

<pre>printf("Enter two number : "); scanf("%d %d",&amp;a, &amp;b);  c = a + b; printf("Sum is %d",c); }</pre> <p><b>Output :-</b>  <b>Enter two number : 10 15</b>  <b>Sum is 25</b></p>	<pre>int no , fact , i ; fact=1; printf("Enter a number : "); scanf("%d", &amp;no); for(i=1;i&lt;=no; i++) {     fact = fact * i; } printf("Factorial is %d",fact); }</pre> <p><b>Output :-</b>  <b>Enter a number : 5</b>  <b>Factorial is 120</b></p>
<p><b>93.Function to find Power (w/o return type w/o arg. )</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void power(); void main() {     clrscr();     power();    /* calling function Power */     getch(); } void power() {     int i,power,no,ans;     ans=1;      printf("Enter a Base number : ");     scanf("%d", &amp;no);      printf("Enter a Power : ");     scanf("%d", &amp;power);      for(i=1;i&lt;=power; i++)     {         ans = ans * no;     }     printf("Power is %d",ans); }</pre> <p><b>Output :-</b>  <b>Enter a Base number :2</b>  <b>Enter a Power :3</b>  <b>Power is 8</b></p>	<p><b>94.Function to find sum (w/o return type – w argument)</b></p> <pre>void sum(int , int ); void main() {     int a, b;      printf("Enter two numbers : ");     scanf("%d %d", &amp;a, &amp;b);      sum(a,b);      getch(); } void sum(int x, int y) {     int c = x + y;     printf("Sum is %d",c); }</pre> <p><b>Output :-</b>  <b>Enter two numbers : 2 5</b>  <b>Sum is 7</b></p>
<p><b>95.Function to find power by passing values in function (example of (w/o return type – w argument)</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; void power (int, int); void main() {     int e,b;     clrscr();     printf("\nEnter b &amp; e :");     scanf("%d%d",&amp;b,&amp;e);      power(b,e);     getch(); } void power(int b, int e) {     int m=1,i;     i=1;     while(i&lt;=e)     {         m=m*b;         i++;     }     printf("%d",m); } /* Output:-</pre>	<p><b>96.Function to find sum (w return type – w argument)</b></p> <pre>int sum(int , int ); void main() {     int a, b, c;      printf("Enter two numbers : ");     scanf("%d %d", &amp;a, &amp;b);      c = sum(a,b);     printf("Sum of two numbers : %d", c);     getch(); } int sum(int x, int y) {     int c = x + y;     return c; }</pre> <p><b>Output :-</b>  <b>Enter two numbers : 22</b>  <b>22</b>  <b>Sum of two numbers : 44</b></p>

Enter b & e :2 5 32 */	
<b>97.Function to find avg (w return type – w argument)</b> float avg(int , int ); void main() { int a, b; float c;  printf("Enter two numbers : "); scanf("%d%d", &a, &b);  c = avg(a,b); printf("Average of two numbers : %d", c); getch(); } float avg(int x, int y) { float c = (x + y) / 2; return c; } <b>Output :-</b> <b>Enter two numbers : 10 15</b> <b>Average of two numbers :12</b>	<b>98.Function to find Simple Interest (w/o return type w arg)</b> #include<stdio.h> #include<conio.h> void interest(float, float, float); void main() { float p,r,n; float ans; clrscr(); interest(p, r, n); getch(); }  void interest(float p, float r, float n) { float ans; printf("\n Enter p:->"); scanf("%f",&p); printf("\n Enter r:->"); scanf("%f",&r); printf("\n Enter no.of years:->"); scanf("%f",&n); ans=((p*r*n)/100); printf("\n The ans is :->%f",ans); } /* <b>Output:--</b> <b>Enter p:-&gt;10000</b> <b>Enter r:-&gt;20</b> <b>Enter no.of years:-&gt;2</b> <b>The ans is :-&gt;4000.000000</b> */
<b>99.Function to reverse the given numbers. (w/o return w. arg.)</b> #include<stdio.h> #include<conio.h> void reverse(int); void main() { int no; clrscr(); reverse(no); getch(); } void reverse(int no) { int i=1,rev=0; printf("enter the no : "); scanf("%d",&no); do { i=no%10; rev=(rev*10)+i; no=no/10; }while (no>0); printf("the reverse no is %d",rev); } /* <b>Output:--</b> <b>enter the no : 123</b> <b>the reverse no is 321</b> */	<b>100. Function to sum all digit in the given number.(w/o return w. arg.)</b> #include<stdio.h> #include<conio.h> void sumall(int); void main() { int no; clrscr(); printf("enter the no : "); scanf("%d",&no); sumall(no); getch(); } void sumall(int no) { int i=1, sum=0; do { i=no%10; sum=sum+i; no=no/10; }while (no>0); printf("the sum is %d",sum); } /* <b>Output:--</b> <b>enter the no : 123</b> <b>the sum is 6</b> */
<b>101.Example of Nested Function</b> void fun1(); void fun2(); void main() { clrscr(); printf("In Main function "); fun1(); }	<b>102. WAP to evaluate <math>p = x / (y - z)</math> by checking whether value of denominator two variables are same or not. (w. return and w. arg. )</b> int find(int, int); float sum(int, int, int); void main() { int a, b, c; }

<pre> getch(); } void fun1() {     printf("In function fun1 ");     fun2(); } void fun2() {     printf("In Function fun2 "); } </pre> <p><b>Output :-</b></p> <p><b>In Main function</b></p> <p><b>In function fun1</b></p> <p><b>In function fun2</b></p>	<pre> float a1; printf("Enter 3 numbers : "); scanf("%d %d %d", &amp;a, &amp;b, &amp;c); a1 = sum(a, b, c); if ( a1 == 0)     printf("Not Possible"); else     printf("%f",a1); } float sum(int x, int y, int z) {     float p;     int ans =find(y, z);     if ( ans == 0 )         return 0 ;     else         p = x / ( y- z) ;     return p; } int find( int p , int q) {     if ( p == q)         return 0 ;     else         return 1; } </pre> <p><b>Output :-</b> <b>Enter 3 numbers :</b></p>
<p><b>103.Function to find maximum from the array elements ( passing array as argument )</b></p> <pre> void max( int [], int); void main() {     int a[5], i, n = 5;     for(i = 0 ; i &lt;n ; i++)     {         scanf("%d", &amp;a[i]);     }     max( a, n); } void max(int x[5], int n) {     int i , max1;     max1=x[0];     for(i=0; i&lt;n; i++)     {         If ( max1 &lt; x[i])         {             max1 = x[i];         }     }     printf("%d",max1); } </pre> <p><b>Output:-</b> <b>10</b> <b>15</b> <b>20</b> <b>25</b> <b>30</b> <b>30</b></p>	<p><b>104. a. Example of Recursion function ( Function called by itself is known as Recursion function.</b></p> <pre> void main() {     printf("This is main function ");     main();     getch(); } </pre> <p><b>Output</b></p> <p><b>Infinite time it will print</b></p> <p><b>This is main function</b></p>
<p><b>104. b. Example of Recursion function ( Function called by itself is known as Recursion function.</b></p> <pre> void main() {     int i = 1;     If ( i &lt;= 5 )     {         i++;         printf("%d",i);         main();     } } </pre>	<p><b>105.Function to find Factorial (w return type w arg – recursion)</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; int fact(int); void main() {     int no,ans;     clrscr();     printf("\n Enter a no: ");     scanf("%d",&amp;no); } </pre>

<pre>     }     getch(); }  <b>Output</b>  <b>Infinite time it will print</b>  <b>2</b> </pre>	<pre>         ans=fact(no);         printf(" %d",ans);         getch();     }     int fact(int n)     {         int a;         if(n==1)             return 1;         else         {             a=n*fact(n-1);         }         return a;     }     /* <b>Output:--</b>  <b>Enter a no: 5</b> <b>120</b> */ </pre>
<p><b>106.Function to find Maximum and Minimum Number (passing array)</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; void main () {     int i,big, small, num[10];     clrscr();     printf("\n Enter 10 no's. : ");     readnum(num);     big=findbiggest(num);     small=findsmallest(num);     printf("big : %d",big);     printf("\n small : %d",small);     getch(); } Void readnum(int temp[10]) {     int j;     for(j=0;j&lt;10; j++)         scanf("%d", &amp;temp[j]); } int findbiggest(int no[10]) {     int bigtemp=no[0],k;     for(k=0; k&lt;10; k++)     {         if(no[k]&gt;bigtemp)             bigtemp=no[k];     }     return bigtemp; } int findsmallest(int no[10]) {     int smalltemp=no[0],k;     for(k=0; k&lt;10; k++)     {         if(no[k]&lt;smalltemp)             smalltemp=no[k];     }     return smalltemp; }  <b>Output:-</b> <b>Enter 10 no's.: 10 20 30 40 35 25 28 15 12 29</b> <b>35</b> <b>10</b> </pre>	<p><b>107. Function to count Total Upper Letters , Lower OR any special letter.</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; int upper, lower, number, special; void main () {     char a[100];     clrscr();     printf("\n Enter your text &amp; press \$ for output:");     readtext(a);     counttext(a);     printf("upper : %d\nlower : %d\nnumber : %d\nspecial : %d",upper, lower, number, special);     getch(); } Void readtext(char b[100]) {     int i;     for(i=0; (b[i]=getchar())!='\$'; i++);     b[i]='\0'; } Void counttext(char b[100]) {     int i;     upper=lower=number=special=0;     for(i=0; b[i]; i++)     {         if(b[i]&gt;='A' &amp;&amp; b[i] &lt;='Z')             upper++;         else if(b[i]&gt;='a' &amp;&amp; b[i] &lt;='z')             lower++;         else if(b[i]&gt;='0' &amp;&amp; b[i] &lt;='9')             number++;         else special++;     } } </pre>

\*\*\*\*\* STRUCTURE \*\*\*\*\*

108. WAP TO Print Employee's ID, NAME using string

109.WAP TO Print Employee's ID, NAME(initialization of

<p><b>function</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; struct stu {     int id;     char name[10]; }; void main() {     struct stu s;     clrscr();     s.id = 1;     strcpy(s.name,"Manav");     printf("Id   Name\n");     printf("\n%d   %s",s.id,s.name);     getch(); }</pre> <p><b>Output :-</b>  <b>Id   Name</b>  <b>1    Manav</b></p>	<p><b>structure)</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; struct stu {     int id;     char name[10]; }; void main() {     struct stu s = {12,"Punit" };     clrscr();     printf("Id   Name\n");     printf("\n%d \t\t %s",s.id,s.name);     getch(); }</pre> <p><b>Output :-</b>  <b>Id   Name</b>  <b>12   Punit</b></p>
<p><b>110.WAP TO Print Employee's ID, NAME and get value from user</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; struct stu {     int id;     char name[10]; }; void main() {     struct stu s;     clrscr();     printf("Enter name and number : ");     scanf("%s %d",s.name , &amp;s.id);     printf("\nId   Name\n");     printf("\n%d   %s",s.id,s.name);     getch(); }</pre> <p><b>Output:-</b>  <b>Enter name and number : test 5</b>  <b>Id   Name</b>  <b>5    test</b></p>	<p><b>111.WAP to calculate total of marks(array as variable)</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; struct stu {     int no, total, m[5];     char name [10]; }; void main() {     int i;     struct stu s;     s.total = 0;     printf("Enter No. and Name : ");     scanf("%d%s",&amp;s.no,s.name);     printf("Enter Marks for 5 subject : ");     for ( i= 0; i&lt;=4; i++)     {         scanf("%d",&amp;s.m[i]);         s.total = s.total + s.m[i];     }     printf("Records entered are : \n");     printf("%d\t%s\t",s.no, s.name);     for(i= 0 ; i&lt;=4; i++)     {         printf("%d\t",s.m[i]);     }     printf("\n Sum is %d",s.total);     getch(); }</pre> <p><b>Output:-</b>  <b>Enter No. and Name : 7 test</b>  <b>Enter Marks for 5 subject : 10</b>  <b>20</b>  <b>30</b>  <b>40</b>  <b>50</b>  <b>Sum is 150</b></p>
<p><b>112.WAP TO Input Book code, Book title, Author Name, Price, Edition and Number of copies for a Book</b></p> <pre>#include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; struct Book {     int book_code;     char title[10];     char author[10];     int price;     char edition[10];     int no_of_copies;</pre>	<p><b>113.WAP to Sort in Structure</b></p> <pre>struct emp {     int no, sal;     char name[10]; }; void main() {     struct emp e[3], temp;     int I;      for ( i = 0; i&lt;=2 ; i++)     {</pre>

<pre> }; void main() { struct Book S; clrscr(); printf("\nEnter Book-code : "); scanf("%d",&amp;S.book_code); printf("\nEnter Book-title : "); scanf("%s",&amp;S.title); printf("\nEnter Author : "); scanf("%s",&amp;S.author); printf("\nEnter Price : "); scanf("%d",&amp;S.price); printf("\nEnter Edition : "); scanf("%s",&amp;S.edition); printf("\nEnter No.of.copies : "); scanf("%d",&amp;S.no_of_copies); clrscr(); printf("\nBook-code....:%d\n",S.book_code); printf("\nBook-title....:%s\n",S.title); printf("\nAuthor.....:%s\n",S.author); printf("\nPrice.....:%d\n",S.price); printf("\nEdition.....:%s\n",S.edition); printf("\nNo.of.copies.:%d\n",S.no_of_copies); getch(); } </pre> <p><b>Output:-</b>  <b>Enter Book-code : 3</b>  <b>Enter Book-title: English</b>  <b>Enter Author : Steve</b>  <b>Enter Price : 55</b>  <b>Enter Edition : 1</b>  <b>Enter No. of. Copies : 10</b></p> <p><b>Book-code....: 3</b>  <b>Book-title....: English</b>  <b>Author....: Steve</b>  <b>Price....: 55</b>  <b>Edition....: 1</b>  <b>No. of Copies....: 10</b></p>	<pre> scanf("%d%s%d",&amp;e[i].no, e[i].name , &amp;e[i].sal); } for(i=0;i&lt;=2;i++) { for(j=i+1;i&lt;=2[i++]) { if ( e[i].sal &gt; e[j].sal) { temp = e[i]; e[i] = e[j]; e[j] = temp; } } } for ( I = 0; i&lt;=2 ; i++) { printf("%d\t%s\t%d",e[i].no, e[i].name , e[i].sal); } getch(); } </pre>
<p><b>114.WAP TO Print Employee Details in array. (Array as a object)</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; #include&lt;string.h&gt; struct Emp { char name[10]; int no,sal; }; void main() { struct Emp e[3]; int i; clrscr(); printf("\n Enter Minimum 3 Entry:- "); printf("\n Enter first Emp.no Second Emp.Name and then enter your salary : "); for(i=0;i&lt;=2;i++) { scanf("\n%d%s%d",&amp;e[i].sal,&amp;e[i].name,&amp;e[i].no); } printf("\nnno\tname\tсал\n"); printf("\n-----"); for(i=0;i&lt;=2;i++) { printf("\n%d\t%s\t%d\n",e[i].sal,e[i].name,e[i].no); } getch(); } </pre> <p><b>Output :-</b>  <b>Enter Minimum 3 Entry:-</b>  <b>Enter first Emp. No Second Emp. Name and then enter</b></p>	<p><b>115.WAP for Structure with Function</b></p> <pre> struct stu { int no, mark; char name[10]; }; void print(struct stu); struct stu get(); void main() { struct stu s; s = get(); print (s); getch(); } struct stu get() { struct stu x; printf("Enter no , name , marks "); scanf("%d%s%d",&amp;x.no,x.name,&amp;x.mark); return x; } void print(struct stru p) { printf("%d\t%s\t%d",p.no.p.name,p.mark); } </pre> <p><b>Output :-</b>  <b>Enter no, name, marks</b>  <b>1</b>  <b>A</b>  <b>10</b>  <b>1 A 10</b></p>

<p><b>your salary :</b></p> <pre> 1 A 10 2 B 20 3 C 30 Id      name      sal 1       a        10 2       b        20 3       c        30 </pre>	
<p align="center"><b>***** Pointers ***** (In Pointer Memory Address are differ on differ PC).</b></p>	
<p><b>116. WAP to illustrate pointers (declaring and printing)</b></p> <pre> main() {     int i;     i = 10;     int *p;     p = &amp;i;      printf("I = %d",i);     printf("I = %d",*p);     printf("Address = %u", &amp;i);     printf("Address = %u",p);     getch(); } </pre> <p><b>Output :-</b>  <b>I=10</b>  <b>I=10</b>  <b>Address=124506</b>  <b>Address =1245064</b></p>	<p><b>117. Arithmetic Operation using Pointers</b></p> <pre> main() {     int x , y, z, a;     int *p , *q, *r;     x = 10;     y = 5;     z = 8;      *p = x;     *q = y;     *r = z;      a = *p + *q - *r;      printf("Sum is %d ",a);      getch(); } </pre> <p><a href="#">Write whole book example here</a></p>
<p><b>118. Pointer with Array</b></p> <pre> Void main() {     int a[6]; int sum=0;     int i, *p;     for(i=0;i&lt;=5;i++)     {         scanf("%d",&amp;a[i]);     }     p = &amp;a[0];     for(i=0 ; i&lt;=5; i++)     {         printf("%d\t%u\n",*p,p);         sum = sum + *p;         p++;     }     printf("Sum is %d",sum);     getch(); } </pre> <p><b>Output :-</b></p> <pre> 1 2 3 4 5 6 1 1245044 2 1245048 3 1245052 4 1245056 5 1245060 6 1245064 Sum is 21 </pre>	<p><b>119. Pointer and String</b></p> <pre> void main() {     char *a;     char *b ;     int length;      printf("Enter String : ");     gets(a);     b=a;     while(*a != '\0')     {         printf("%c is stored at %u",*a,a);         a++;     }     length = a- b;     printf("Length is %d",length);     getch(); } </pre> <p><b>Output:-</b>  <b>Enter string : hello</b>  <b>Hello is stored at 1245044 /* 1245044 is memory address it should be differ*/</b></p>
<p><b>120. Pointer with Function</b>  <b>a. Call by Value</b>          void swap (int , int);</p>	<p><b>121.Pointer with Structure</b></p> <pre> struct student { </pre>



<pre> void main() {     int a,b;     a = 100;     b = 200;      printf("%d \n %d",a,b);     swap(a,b);     printf("%d \n %d",a,b);     getch(); }  void swap(int a , int b) {     a = 200;     b = 100; }  <b>b. Call by Reference</b> void swap( int *, int *); main() {     Int a,b;     a = 100 ; b = 200;      printf("%d\n%d",a,b);     swap (&amp;a , &amp;b);     printf("%d\n%d",a,b);     getch(); }  void swap(int *a , int *b) {     int temp = *a;     *a = *b;     *b = temp; } </pre>	<pre> int no; char name[10]; }; void main(); {     struct student s[3], *p;      printf("Enter No. and Name : ");     for( p =s;p &lt; s+3; p++)     {         scanf("%d%s",&amp;p.no, p.name);     }      printf("Entered No. and Name are ");     p=s;     for(i=1; i&lt;=3;i++)     {         printf("%d\t%s\n",p.no, p.name);         p++;     }     getch(); }  <b>Output :-</b> <b>Enter No. and Name :</b> <b>1 abc</b> <b>2 abc</b> <b>3 abc</b> <b>Entered No. and Name are</b> <b>1 abc</b> <b>2 abc</b> <b>3 abc</b> </pre>
<p><b>122. WAP using pointers to compute the sum of all elements stored in array</b></p> <pre> Void main() {     int *p, sum, i;     int x[5] = {5,3,2,11,2};     i = 0;     p = x;      while ( i &lt;5)     {         sum = sum + *p;         i++; p++;     }     printf("Sum is %d",sum);     getch(); }  <b>Output :-</b> <b>Sum is 23</b> </pre>	
<p><b>FILE</b></p> <p><b>123. WAP to Open file, write into a file and read from file using fopen() , fclose(), getc() and putc().</b></p> <pre> #include &lt;stdio.h&gt; #include&lt;conio.h&gt; void main() {     FILE *P;     Char c;      P = fopen("hello","w");      while (( c = getchar()) !=EOF)     { </pre>	<p><b>124.WAP to open and write, read file only integers (using getw and putw fn.)</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; main() {     int i , no;     FILE *P;      P = fopen("hello","w");     for ( i = 1; i &lt;=10;i++)     {         scanf(" %d",&amp;no);         putw(no, p);     }     fclose(p); </pre>

<pre> Putc(c,P); } fclose(p);  P = fopen("hello","r");  While ( ( c = getc(P) !=EOF) {     Printf("%c",c); } getch(); } </pre>	<pre> p = fopen("hello","r");  for( i =1 ; i&lt;=10 ; i++) {     no = getw(p);     printf(" %d\n",no); } fclose(p); getch(); } </pre>
<p><b>125. WAP to write into and read from file using fprintf and fscanf</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; main() {     FILE *p;     int no;     char name[10];     float price;      printf("Enter No. Name, Price : ");     scanf("%d %s %f", &amp;no, name , &amp;price);      p = fopen("data","w");      fprintf(p , "%d\t%s\t%f\n", no , name , price );     fclose (p);      p = fopen("data","r");      fscanf(p , "%d%s%f", &amp;no , name , &amp;price );     printf( "%d\t%s\t%f\n", no , name , price );      fclose (p);     getch(); } </pre>	<p><b>126. WAP to access file randomly using ftell(), fseek(), rewind()</b></p> <pre> #include&lt;stdio.h&gt; main() {     FILE *p;     Long n;     Char c;     p = fopen("RANDOM","w");     while (( c = getchar()) !=EOF)     {         putc(c,p);     }     fclose(p);     n=OL;     while (fecof(p) == 0)     {         fseek( p, n, 0);         printf("Position of %c is %d\n",getc(p) , ftell(p));         n = n + 5L;     }     putchar('\n');     fseek(p , -1L, 2);     do     {         putchar(getc(p));     }while( !fseek( p , -2L, 1);     fclose(p); } </pre>
<p><b>127. WAP to store Odd numbers in ODD file and Even numbers in EVEN File.</b></p> <pre> #include&lt;stdio.h&gt; main() {     FILE *f1 , *f2, *f3;     int number , i;      printf("Enter numbers in File \n\n ");     f1 = fopen("Data","w");     for(i=1 ; i&lt;= 10 ; i++)     {         scanf("%d",&amp;number);         putw(number,f1);     }     fclose(f1);      f1=fopen("Data","r"); </pre>	<p><b>128. WAP to open a file name ITEMMASTER and store in data file.</b></p> <pre> #include&lt;stdio.h&gt; main() {     FILE *p;     iInt name , qty , il     float price , value;     char item[10], filename[10];      printf("Enter File name : ");     scanf("%s",filename);     p = fopen(filename , "w");     printf("Enter Item Details as : ");     printf("Item Name  Number  Price  Quantity \n");     for ( i = 1 ; i&lt;= 3 ; i++)     {         fscanf(stdin,"%s %d %f %d",item, &amp;number, &amp;price, &amp;qty);         fprintf(p,"%s %d %.2f %d",item, number, price, qty);     } </pre>

<pre> f2=fopen("Odd","w"); f3=fopen("Even","w");  while( ( number = getw(f1) != EOF ) {     If (number % 2 == 0)         putw(number , f3);     else         putw(number , f2); } fclose(f1); fclose(f2); fclose(f3);  f2=fopen("Odd","r"); f3=fopen("Even","r");  printf("ODD No.s are : \n"); while ( (number = getw(f2)) != EOF)     printf("%d\n",number);  printf("Even No.s are : \n"); while ( (number = getw(f3)) != EOF)     printf("%d\n",number);  fclose(f3); fclose(f4);  getch(); } </pre>	<pre> } fclose(p); p = fopen(filename , "r");  printf("Item Name  Number  Price  Quantity \n"); for ( i = 1 ; i&lt;= 3 ; i++) {     fscanf(p,"%s %d %f %d",item, &amp;number, &amp;price, &amp;qty);     value = price * qty;     fprintf(stdout,"%s %d %.2f %d %.2f\n",item, number, price,     qty,value); } fclose(p); } </pre>
<p><b>129. Program to input file name, check whether file exist or not. If exist, then print character by character on screen.</b></p> <pre> #include &lt;stdio.h&gt; #include &lt;conio.h&gt; main() {     FILE *fp;     char fname[20];     char c;     printf("Enter the name of the file : ");     scanf("%s",fname);      if ( (fp == fopen(fname , "r",)) = NULL)     {         printf("File does not exist\n");         exit(0 );     }      while ( ( c = getc(fp)) != EOF)         putchar(c );      fclose (fp);     getch(); } </pre>	<p><b>130. Program to copy one file to another file</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt;  main() {     FILE * fp1 , *fp2;     char sname[15] , dname[15];     int c;      printf("Enter name of Source file : ");     gets(sname);     printf("Enter name of Destination file : ");     gets(dname);      if (( fp1 = fopen(sname, "r") == NULL)     {         printf("File does not exist\n");         exit(0);     }     if(( fp2 = fopen(dname,"w") == NULL)     {         printf("File could not be opened " );         exit(0);     }      while (( c = fgetc(fp1) != EOF)     {         putc(c,fp2);     } } </pre>

	<pre> fclose(fp1); fclose(fp2); } </pre>
<p><b>131. Program that illustrates Files and Structures</b></p> <pre> #include&lt;stdio.h&gt; #include&lt;conio.h&gt; struct student {     int r_no;     char name[20];     int age; }; main() {     FILE *fp;     struct student s;     int i;      /* Open file to write in the file */     if (( fp = fopen("Data","w")) == NULL)     {         printf("File could not be opened ");         exit(0 );     }      puts("Enter 5 records : ");     for(i = 0 ; i &lt;= 5 ; i++)     {         scanf("%d %s %d",&amp;s.r_no , s.name , s.age);         fprintf(fp, "%d %s %d\n",s.r_no , s.name , s.age);     }      fclose(fp);      /*Open file to read from the file */     if (( fp = fopen("Data","r")) == NULL )     {         printf("File does not exist " );         exit(0);     }     puts("----- Entered records are : ");     for ( i = 0 ; i&lt;=4; i++)     {         fscanf(fp , "%d %s %d",&amp;s.r_no , s.name , s.age);         printf("%d %s %d\n",s.r_no , s.name , s.age);     }      fclose(fp);     getch(); } </pre>	<p><b>132. Program that receive filename and text as command line argument and write that text in the file.</b></p> <pre> #include&lt;stdio.h&gt; main( int argc , char *argv[]) {     FILE *p;     int i;     char word[15];      p = fopen(argv[1] , "w");      printf("\n No. of arguments in command line = %d\n\n",argc);     for(i=2 ; i&lt;=argc; i++)     {         fprintf(p,"%s",argv[i]);     }     fclose(p);      printf("Contents of %s file is \n",argv[1]);      p = fopen(argv[1], "r")     for(i=2 ; i&lt; argc ; i++)     {         fscanf(p , "%s", word);         printf("s ", word);     }     fclose(p);     printf("\n\n");     getch(); } </pre>

\*\*\*\*\* BEST OF LUCK \*\*\*\*\*