pujan mahat

1)
//display the elements and sum (single dimension)

```
#include<stdio.h>
#include<conio.h>
int main()
{
        int num[10];//declaration of array
        int i,sum=0;
        printf("enter 10 numbers:\n");
        for(i=0;i<10;i++)
        {
                scanf("%d",&num[i]);
        }
        //sum of array elements
        for(i=0;i<10;i++)
        {
                sum=sum+num[i];
        }
        //display array elements
        printf("--------------------------------\n");
        printf("the entered elements are:\n");
        for(i=0;i<10;i++)
        {
                printf("%d\t",num[i]);
        }
        printf("-------------------------\n");
        printf("the sum of all numbers is %d\n",sum);
        getch();
        return 0;

}
```

2)
//display sum of two elements (single dimension)

```
#include<stdio.h>
#include<conio.h>
int main()
{
  int a[10],b[10],c[10],i;
  printf("enter the elements of first arrays\n");
  for(i=0;i<10;i++)
  {
        scanf("%d",&a[i]);
  }
  printf("enter the elements of second arrays\n");
  for(i=0;i<10;i++)
```

```
  {
        scanf("%d",&b[i]);
  }
  for(i=0;i<10;i++)
  {
        c[i]=a[i]+b[i];
  }
  printf("\nthe elements of third arrays\n");
  for(i=0;i<10;i++)
  {
        printf("%d\t",c[i]);
  }
  getch();
  return 0;
}

3)
//display in ascending order (single dimension)

#include<stdio.h>
#include<conio.h>
int main()
{
        int num[100];
        int i,j,n,temp;
        printf("enter total integers\n");
        scanf("%d",&n);
        printf("enter integers\n");
        for(i=0;i<n;i++)
        {
                scanf("%d",&num[i]);
        }
        for(i=0;i<n;i++)
        {
                for(j=i+1;j<n;j++)
                {
                        if(num[i]>num[j])
                        {
                                temp=num[i];
                                num[i]=num[j];
                                num[j]=temp;
                        }
                }
        }
        printf("the sorted number are \n");
        for(i=0;i<n;i++)
        {
                printf("%d\t",num[i]);
```

```
        }
        getch();
        return 0;
}


4)
//disply total percentage(single dimension)

#include<stdio.h>
#include<conio.h>
int main()
{
        int marks[5];
        int i,sum=0;
        float pct;
        printf("enter marks of maths:\n");
        scanf("%d",&marks[0]);
        printf("enter marks of science:\n");
        scanf("%d",&marks[1]);
        printf("enter a marks of english:\n");
        scanf("%d",&marks[2]);
        printf("enter marks of nepali:\n");
        scanf("%d",&marks[3]);
        printf("enter a marks of social:\n");
        scanf("%d",&marks[4]);
        for(i=0;i<5;i++)
        {
                sum =sum+marks[i];

        }
        pct=sum/5.0;

        printf("maths\tscience\tenglish\tnepali\tsocial\n");

        for(i=0;i<5;i++)
        {
                printf("%d\t",marks[i]);
        }

        printf("the percentage is %f",pct);
        getch();
        return 0;

}

5)
//display sum of two matrix (multi dimension)
```

```
#include <stdio.h>
#include <conio.h>
int main()
{
        int mat1[100][100],mat2[100][100],mat3[100][100];
        int i,j,m,n;
        printf("enter row and column\n");
        scanf("%d%d",&m,&n);
        printf("enter the elements of matrix1\n");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        scanf("%d",&mat1[i][j]);
                }
        }
        printf("enter the elements of matrix2\n");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        scanf("%d",&mat2[i][j]);
                }
        }
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
        {
                mat3[i][j]=mat1[i][j]+mat2[i][j];
        }
   }
   //displaying the elements matrix
   printf("the entered element matrix1 is\n");
   for(i=0;i<m;i++)
   {
        for(j=0;j<n;j++)
        {
                printf("%d\t",mat1[i][j]);
    }
    printf("\n");
   }
   printf("the entered element of matrix2\n");
   for(i=0;i<m;i++)
   {
        for(j=0;j<n;j++)
        {
                printf("%d\t",mat2[i][j]);
```

```
            }
            printf("\n");
    }
    printf("the sum of matrix is\n");
    for(i=0;i<m;i++)
    {
         for(j=0;j<n;j++)
         {
                printf("%d\t",mat3[i][j]);
            }
            printf("\n");
    }
    getch();
    return 0;
}

6)
//display matrix and sum (multi dimension)

#include <stdio.h>
#include <conio.h>
int main()
{
        int mat[100][100],i,j,sum=0;
        int m,n;
        printf("enter row and column of matrix\n");
        scanf("%d%d",&m,&n);
        printf("enter elements of matrix\n");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        scanf("%d",&mat[i][j]);
                }
        }
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)

        {
                sum=sum+mat[i][j];
        }
}
    printf("-------------------------------------\n");
        printf("the entered element matrix\n");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
```

```
        {
                printf("%4d",mat[i][j]);
        }
        printf("\n");
}
        {
                printf("-------------------------\n");
                printf("the sum is %d",sum);
                return 0;
        }

}

7)
//display multiplication of aaray between two matrix(multi dimension)

#include <stdio.h>
#include <conio.h>
int main()
{
        int mat1[100][100],mat2[100][100],mat3[100][100];
        int i,j,k,row1,row2,col1,col2;
        printf("enter row and column of matrix1\n");
        scanf("%d%d",&row1,&col1);
        printf("enter row and coliumn of matrix 2\n");
        scanf("%d%d",&row2,&col2);
        if(row2!=col1)
        printf("matrix cannot be multiplied");
        else
        {
        printf("enter the elements of matrix1\n");
        for(i=0;i<row1;i++)
        {
                for(j=0;j<col1;j++)
                {
                        scanf("%d",&mat1[i][j]);
                }
        }
        printf("--------------------\n");
        printf("enter the elements of matrix2\n");
        for(i=0;i<row2;i++)
        {
                for(j=0;j<col2;j++)
                {
                        scanf("%d",&mat2[i][j]);

                }
```

```
        }
        //matrix miultipliction
        for(i=0;i<row1;i++)
        {
                for(j=0;j<col2;j++)
                {
                        mat3[i][j]=0;
                        for(k=0;k<col1;k++)
                        {
                                mat3[i][j]+=mat1[i][k]*mat2[k][j];
                        }
                }
        }
        //displaying the element of matrix
        printf("entered elements of matrix1 is \n");
        for(i=0;i<row1;i++)
        {
                for(j=0;j<col1;j++)
                {
                        printf("%d\t",mat1[i][j]);
                }
                printf("\n");
        }
        printf("-----------------------\n");
        printf("the entered elements of matrix2\n");
        for(i=0;i<row2;i++)
        {
                for(j=0;j<col2;j++)
                {
                        printf("%d\t",mat2[i][j]);
                }
                printf("\n");
        }
        //displaying the multiplication of matrix
        printf("----------------------\n");
        printf("the multiplication of matrix is\n");
        for(i=0;i<row1;i++)
        {
                for(j=0;j<col2;j++)
                {
                        printf("%d\t",mat3[i][j]);
                }
                printf("\n");
        }
        getch();
        return 0;
}
```

```
}

8)
//transpose of matrix(multi dimension)

#include <stdio.h>
#include <conio.h>
int main()
{
        int mat1[100][100],mat2[100][100];
        int i,j,m,n;
        printf("enter row and coiumn of matrix\n");
        scanf("%d%d",&m,&n);
        printf("enter the elerments of matrix");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        scanf("%d",&mat1[i][j]);
                }
        }
        //transpose of matrix
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        mat2[j][i]=mat1[i][j];
                }
        }
        // displaying elements of matrix
        printf("the entered matrix is\n");
        for(i=0;i<m;i++)
        {
                for(j=0;j<n;j++)
                {
                        printf("%d\t",mat1[i][j]);
                }
                printf("\n");
        }
        //displaying the transpose of matrix
        printf("the transpose of matrix is\n");
        for(i=0;i<n;i++)
        {
                for(j=0;j<m;j++)
                {
                        printf("%d\t",mat2[i][j]);
                }
                printf("\n");
```

```
        }
        getch();
        return 0;
}
```