LAB-6

1) Addition of two matrices :-

→
```c
#include <stdio.h>
int main()
{
int m, n, c, d, First[10][10], Second[10][10],
    Sum[10][10];
clrscr();
printf("Enter the no. of rows and
    coloumns of a matrix \n");
scanf("%d %d", &m, &n);
printf("Enter the elements of first matrix");
for (c=0; c<m; c++)
for (d=0; d<n; d++)
scanf("%d", &first[c][d]);
printf("Enter the elements of second mat");
for (c=0; c<m; c++)
for (d=0; d<n; d++)
scanf("%d", &Second[c][d]);
printf("Sum of entered matrix:- \n");
for (c=0; c<m; c++)
{
for (d=0; d<n; d++)
{
Sum[c][d] = first[c][d] + Second[c][d];
printf("%d \t", Sum[c][d]);
}
printf("\n");
}
return 0;
}
```

2) Transpose of entered matrix :-

→
```c
#include <stdio.h>
int main()
{
int a[10][10], transpose [10][10], r,c, i,j ;
clrscr();
printf ("Enter the rows and coloumns:");
scanf ("%d %d", &r, &c);
printf ("Enter the elements: \n");
for (i=0; i<r; +++i) ;
for (j=0 ; j<c; ++j);
{

printf (" Enter the elements a%d%d:",
          (i+1), (j+1) );
scanf ("%d", &a[i][j]);
}

printf (" The entered matrix:");
for (i=0; i<r ; i++)
for (j=0; j<r; j++)
{

printf ("%d", a[i][j]);
if (j == c-1)
printf ("\n");
}

for (i=0; i<r; i++)
for (j=0; j<r; j++)
{

transpose [j][i] = a [i][j];
}

printf (" Transpose of matrix ");
for (i=0; i<c; i++)
```

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

3.
```c
#include <stdio.h>
int main()
{
int marks [3][4], maxmarks [3], r, c;
clrscr();
for (r=0; r<3; r++)
{
printf ("Enter the marks of all Students in
         Subjects %d:", (r+1));
for (c=0; c<4; c++)
{
scanf ("%d", & marks [r][c]);
} }
for (r=0; r<3; r++)
{
maxmarks [r] = 0;
for (c=0; c<4; c++)
{
if (marks [r][c] > maxmarks [r])
{
maxmarks [r] = marks [r][c];
}
} }
```

```c
printf ("Maximum marks are as follows: ");
for (r=0; r<3; r++)
{

printf (" max marks of students in subject
      %d is: %d \n",   (r+1), marks [r]);
}

getch();
 return 0;
 }
```