**ADA LAB-14**

* **Prim’s algorithm to find minimum cost spanning tree of a given undirected graph.**
  + - * **Program**

#include<stdio.h>

#include<conio.h>

int c[10][10],n;

void prims()

{

int i,j,u,v,min;

int ne=0,mincost=0;

int elec[10];

for(i=1;i<=n;i++)

{

elec[i]=0;

}

elec[1]=1;

while(ne!=n-1)

{

min=9999;

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

if(elec[i]==1)

{

if(c[i][j]<min)

{

min=c[i][j];

u=i;

v=j;

}

}

}

}

if(elec[v]!=1)

{

printf("\n%d----->%d=%d\n",u,v,min);

elec[v]=1;

ne=ne+1;

mincost=mincost+min;

}

c[u][v]=c[v][u]=9999;

}

printf("\nmincost=%d",mincost);

}

int main()

{

int i,j;

printf("\nenter the no. of vertices:\t");

scanf("%d",&n);

printf("\nenter the cost matrix:\n");

for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

scanf("%d",&c[i][j]);

}

}

prims();

getch();

}

* + - * **Output**

