Code:

#include<stdio.h>

#include<conio.h>

void kruskals();

int c[10][10],n;

void 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]);

}

}

kruskals();

getch();

}

void kruskals()

{

int i,j,u,v,a,b,min;

int ne=0,mincost=0;

int parent[10];

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

{

parent[i]=0;

}

while(ne!=n-1)

{

min=9999;

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

{

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

{

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

{

min=c[i][j];

u=a=i;

v=b=j;

}

}

}

while(parent[u]!=0)

{

u=parent[u];

}

while(parent[v]!=0)

{

v=parent[v];

}

if(u!=v)

{

printf("\n%d----->%d=%d\n",a,b,min);

parent[v]=u;

ne=ne+1;

mincost=mincost+min;

}

c[a][b]=c[b][a]=9999;

}

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

}

Output:

