

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:

```

enter the no. of vertices:      3

enter the cost matrix:
10 20 13
30 40 50
18 16 14

1----->3=13

3----->2=16

mincost=29

...Program finished with exit code 0
Press ENTER to exit console.

```