

Code:

```
#include<stdio.h>

#include<conio.h>

void prims();

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]);

}

}

prims();

getch();

}

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);
}
```

Output:

```
enter the no. of vertices:      3

enter the cost matrix:
10 20 30
15 40 80
13 16 19

1----->2=20

1----->3=30

mincost=50

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