

```
#include<stdio.h>

int ne=1, min_cost=0;

void main ( )
{
int n,i,j, min,a,u,b,v,cost[20][20],parent[20];
printf("Enter the no. of vertices:");
scanf("%d",&n);
printf("\nEnter the cost matrix:\n");
for(i=1;i<=n;i++)
for(j=1;j<=n;j++)
scanf("%d",&cost[i][j]);
for(i=1;i<=n;i++)
parent[i]=0;
printf("\nThe edges of spanning tree are\n");
while(ne<n)
{
min=999;
for(i=1;i<=n;i++)
{
for(j=1;j<=n;j++)
{
if(cost[i][j]<min)
{
min=cost[i][j];
a=u=i;
b=v=j;
} } }
while(parent[u])
u=parent[u];
while(parent[v])
v=parent[v];
if(u!=v)
```

```
{
    printf("Edge %d\t(%d->%d)=%d\n",ne++,a,b,min);
    min_cost=min_cost+min;
    parent[v]=u;
}
cost[a][b]=cost[a][b]=999;
}
printf("\nMinimum cost=%d\n",min_cost);
}
```

**Output:**

Enter the no. of vertices:

6

Enter the cost matrix:

999	3	999	999	6	5
3	999	1	999	999	4
999	1	999	6	999	4
999	999	6	999	8	5
6	999	999	8	999	2
5	4	4	5	2	999

The edges of spanning tree are

Edge 1      (2->3)=1

Edge 2      (5->6)=2

Edge 3      (1->2)=3

Edge 4      (2->6)=4

Edge 5      (4->6)=5

Minimum cost=15