9 prog

```
#include<stdio.h>
int main()
{
 int cost[10][10],visited[10]={0},i,j,n,no_e=1,min,a,b,min_cost=0;
 printf("Enter number of nodes ");
 scanf("%d",&n);
 printf("Enter cost in form of adjacency matrix\n");
 //input graph
 for(i=1;i<=n;i++)
 {
 for(j=1;j<=n;j++)
 {
 scanf("%d",&cost[i][j]);
 // cost is 0 then initialize it by maximum value
 if(cost[i][j]==0)
 cost[i][j]=1000;
 }
 }
 // logic for finding minimum cost spanning tree
 visited[1]=1; // visited first node
while(no_e<n)
 {
 min=1000;
 // in each cycle find minimum cost
 for(i=1;i<=n;i++)
 {
 for(j=1;j<=n;j++)
```

```
{
if(cost[i][j]<min)
{
if(visited[i]!=0)
{
min=cost[i][j];
a=i;
b=j;
}
}
}
}
//if node is not visited
if(visited[b]==0)
{
printf("\n%d to %d cost=%d",a,b,min);
min_cost=min_cost+min;
no_e++;
}
visited[b]=1;
// initialize with maximum value you can also use any other value
cost[a][b]=cost[b][a]=1000;
}
printf("\nminimum weight is %d",min_cost);
return 0;
```