1)Kruskal

```
#include<stdio.h>
#include<conio.h>
void kruskals();
int c[10][10],n;
void main()
{
    int i,j;
    printf("\n enter the number of vertices:\t");
    scanf("%d",&n);
    printf("\n enter the cost matrix:\n");
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=n;j++)
        {
            scanf("%d",&c[i][j]);
        }
    }
    kruskals();
}
void kruskals()
{
    int u,v,i,j,a,b,min;
    int mincost=0,count=0;
    int parent[10];
    for(i=1;i<=n;i++)
    {
        parent[i]=0;
    }
    while(count!=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;
        mincost=mincost+min;
    }
    c[a][b]=c[b][a]=9999;
    count++;
```

```
    }
    printf("\n mincost=%d",mincost);
}
```