## LAB TEST-2

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Find Minimum cost Spanning Tree of a given
Undirected graph using Kruskals algorithm.
# include < stdio. hrelpland and lilling
void main ()
 int a [20] [20], b [20] [20], c [20] [20], d [20] [20],
 nod = 0, n, vali = 0, i, j, k, t, m = 0, posx, posy, val;
 Printf ("In Enter the value of n:");
 Scanf ("/d", &n);
 Printf ("In Enter the adjacency matrix \n");
 for (i=0; i<n; i++)
  for (j=0;j<n;j++)
 scanf ("/d", 8 a[i][i]);
  b[i][j] = (i==j?0:a[i][j]);
  m=m+ (b[i][j]?1:0);
  C[i][j] = 0;
 d[i][j]=0;
for (m=m/2; m!=0 && (nod!=(n-1)); m--)
  val = 32767;
```

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for (i=0; i <n; i++)
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for Cj=0; j<p;j++)
    (b[i][j]!=088 b[i][j]<val)
 POS x = i;
 posy=j; b, welled to localled. Dollaric ha
 Val = b [i][j]; o en . I. d. jer, de i lev. er. de lev.
           is the formula of the control of the control
                            for A . Vari
 b[posy] = 6, Lu onthing of posy]
 b[posy] [posx]=0;
 if (c[posx] [posy]==0).
  C[posx][posy]=1;
  C[posy][posx]=1;
   for ( k=0; k<n; k++)
   for (i=0; i<n; i++)
    for (j=0; j <n; j++)
    c[i][j] = c[i][j] | cc[i][k] 8 c[k][j]);
```

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Val 1 = Val 1 + a [posx] [posy];
nod = nod + 1;
d[posx][posy] = a [posx][posy];
d [pos zy] [pos x] = a [posy][posy];
} > print ("the node / Ls", & nod);
 for (i=0; i<n; i++)
  Printf ("In");
 for (j=0; j<n;j++)
   Printf (" /d", d[i][j]);
Printf ("In Spanning tree has a cost of /d', val1);
  else
  Printf ("In Spanning tree does not exist!");
```