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ROLL NO:20

PROGRAM:

#include <stdio.h>

#include <stdlib.h>

int source,v,e,time,visited[20],g[20][20];

void DFS (int i)

{

int j;

visited[i]=1;

printf("%d ->",i+1);

for(j=0;j<v;j++)

{

if(g[i][j]==1 && visited[j]==0)

DFS(j);

}

}

int main()

{

int i,j,v1,v2;

printf("\t\t\tGraphs\n");

printf("Enter the number of edges:");

scanf("%d",&e);

printf("Enter the number of vertices:");

scanf("%d",&v);

for(i=0;i<v;i++)

{

for(j=0;j<v;j++)

g[i][j]=0;

}

for(i=0;i<e;i++)

{

printf("Enter the edges in format:(v1,v2)=");

scanf("%d%d",&v1,&v2);

g[v1-1][v2-1]=1;

}

for(i=0;i<v;i++)

{

for(j=0;j<v;j++)

printf("%d",g[i][j]);

printf("\n");

}

printf("Enter the source:");

scanf("%d",&source);

DFS(source-1);

return 0;

}

OUTPUT:

