Green University of Bangladesh

Department of Computer Science and Engineering

CLP

Course Title: Algorithms Lab

Course code: CSE-206

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Task No:1

```
#include<stdio.h>
#include<stdlib.h>
int a[100][100],visited[200],n;

void dfs(int i)
{
  int j;
  visited[i]=1;
  for(j=1;j<=n;j++)
  if(a[i][j] && !visited[j])
  {
    printf(" %c ",i);
    dfs(j);
  }
}
int main()
{
 int i,j,track=0;
 printf("\n Enter number of vertices:");
 scanf("%d",&n);
  for(i=1;i<=n;i++)
      for(j=1;j<=n;j++)
        scanf("%d",&a[i][j]);
  dfs(1);
  for(i=1;i<=n;i++)
    {
```

```
    if(visited[i])
    track++;
   }
  if(track==n)
    printf(" Graph is connected");
  else
    printf(" Graph is not connected");
  return 0;
}
```

Task No:2

```
#include <iostream>
#include<stdio.h>
#include<vector>
using namespace std;
int n, adj[100][100],visited[100]={0},u,v,siz;
void dfs(int s)
{
  visited[s]=1;
   siz = sizeof(adj[s]);
  for(int i=0;i<siz;i++)
  {
    // if(!visited[adj[s][i]])
        if(!visited[i] && adj[s][i]==1)
          dfs(i);
  }
```

```
}
int main()
{
   printf("Total Edge : ");
   scanf("%d",&n);
   for (int i=0; i<n;i++)
   {
//cin>> u>>v;
      // adj[u][]=v;
      // adj[v][]=u;
      for(int j=0;j<n;j++)
          scanf("%d",&adj[i][j]);
   }
dfs(0);
}
```