

## PROGRAM 22:

```
#include<stdio.h>

void DFS(int);

int G[10][10],visited[10],n;

int main()
{
    int i,j;

    printf("Enter number of vertices:");

    scanf("%d",&n);

    printf("\nEnter adjacency matrix of the graph:");

    for(i=0;i<n;i++)
        for(j=0;j<n;j++)
            scanf("%d",&G[i][j]);

    for(i=0;i<n;i++)
        visited[i]=0;

    DFS(0);
}

void DFS(int i)
{
    int j;

    printf("\n%d",i);

    visited[i]=1;

    for(j=0;j<n;j++)
        if(!visited[j]&&G[i][j]==1)
            DFS(j);
}
```

## OUTPUT:

```
Enter number of vertices:8
Enter adjacency matrix of the graph:0 1 1 1 0 0 0 0
1 0 0 0 0 1 0 0
1 0 0 0 0 1 0 0
1 0 0 0 0 0 1 0
1 0 0 0 0 0 1 0
0 1 1 0 0 0 0 1
0 0 0 1 1 0 0 1
0 0 0 0 1 1 0 0
0
1
5
2
7
6
3
4
-----
Process exited after 196.4 seconds with return value 0
Press any key to continue . . .
```