## **Experiment No-7**

input:

```
1 #include<stdio.h>
2 int a[20][20],q[20],visited[20],n,f=-1,r=-1;
4 void BFS(int v)
5 {
   int i;
   for(i=0;i<n;i++)</pre>
    if(a[v][i]!=0 && visited[i]==0)
     \Gamma = \Gamma + 1;
     q[r]=i;
     visited[i]=1;
14
     printf("%d",i);
   f=f+1;
   if(f<=r)
    BFS(q[f]);
4 int main()
   int i,v,j;
printf("\n Enter the No. of Vertices : ");
scanf("%d",&n);
   for(i=0;i<n;i++)
    visited[i]=0;
   printf("\n Enter Graph data in matrix form\n");
   for(i=0;i<n;i++)</pre>
    for(j=0;j<n;j++)</pre>
     scanf("%d",&a[i][j]);
41 printf("\n Enter the Starting Vertex : ");
   scanf("%d",&v);
   f=r=0;
44 q[r]=v;
   visited[v]=1;
46 printf("%d",v);
  BFS(v);
48
   if(r!=n-1)
     printf("\nBFS not Possible");
    printf("\n");
     return 0;
  }
```

## Output: