BFS PROGRAM :-

```
#include<stdio.h>
void bfs(int);
int a[10][10],vis[10], n;

void main(){
 int i,j,src;
 printf("\nenter the no of vertices:\t");
 scanf("%d",&n);
 printf("\nenter the adjacency matrix:\n");
 for(i=1;i<=n;i++){
  for(j=1;j<=n;j++){
   scanf("%d",&a[i][j]);
  }
 }
 printf("\nenter the source node:\t");
 scanf("%d",&src);
 printf("nodes reachable from %d vertex is ",src);
 bfs(src);
 getch();
}

void bfs(int v){

int q[10],f=0,r=0,u,i,j;
vis[v]=1;
q[r]=v;

while(f<=r){
 u=q[f];
```

```
while(f<=r){
 u=q[f];
 printf("%d\t",u);
 for(i=1;i<=n;i++){
  if(a[u][i]==1&&vis[i]==0){
  vis[i]=1;
  r=r+1;
  q[r]=i;
  }
 }
 f=f+1;
 }
}
```

OUTPUT:-

```
enter the no of vertices:       5

enter the adjacency matrix:
0 0 1 0 0
0 0 1 0 0
0 0 0 0 1
0 0 0 0 1
0 0 0 0 0

enter the source node:  1
nodes reachable from 1 vertex is 1      3       5

...Program finished with exit code 0
Press ENTER to exit console.
```