Exp No: Write a C program to Graph traversal using Breadth first search.

Aim: To write a C program to Graph traversal using Breadth first search.

Algorithm:

*. start.
*. input number of vertices and edges.
*. create adjacency matrix.
*. Use a queue to implement BFS.
*. Mark visited nodes and print traversal.
*. Stop.

program:

```
#include <stdio.h>
int main(){
    int n=5;
    int g[5][5] = {
            {0,1,1,0,0},
            {1,0,0,1,1},
            {1,0,0,1,0},
            {0,1,1,0,1},
            {0,1,0,1,0}
        };
    int q[10], front=0, rear=0, visited[5]={0};
    int start=0;
    q[rear++]=start;
    visited[start]=1;
    printf("BFS: ");
    while(front<rear){
        int u=q[front++];
        printf("%d",u);
        for(int v=0; v<n; v++)
            if(g[u][v] && !visited[v]){
                visited[v]=1;
                q[rear++]=v;
```

```
    }
}
```

output:

```
BFS : 0 1 2 3 4
```

Result: Thus, the program executed successfully