```
def isSafe(graph, color):
	for i in range(n):
		for j in range(i + 1, n):
			if (graph[i][j] and color[j] == color[i]):
				return False
	return True
def graphColoring(graph, m, i, color):
	if (i == n):
		if (isSafe(graph, color)):
			display(color)
			return True
		return False
	for j in range(1, m + 1):
		color[i] = j
		if (graphColoring(graph, m, i + 1, color)):
			return True
		color[i] = 0
	return False
def display(color):
	print("1")
n=int(input())
m=int(input())
e=int(input())
graph=[]
for i in range(n):
	a=[]
	for j in range(n):
		a.append(0)
	graph.append(a)
for i in range(e):
	a=int(input())
	b=int(input())
	graph[a][b]=1
	graph[b][a]=1
color = [0 for i in range(n)]
if (not graphColoring(graph, m, 0, color)):
	print ("0")
```