

## Lab-5 Explanation

### Task-1(A)

The code defines a function 'find-order' that takes an integer 'n' and a list of prerequisites and attempts to find a valid order of courses based on prerequisites.

### Task-1(B)

The overall purpose of the code is to read a directed graph's information from an input file, perform a BFS-based topological sorting and write either the valid ordering or "IMPOSSIBLE" to

an output ~~file~~ based result.

### Task-2

Perform a BFS-based topological sorting using a priority queue and write either the valid ordering or "IMPOSSIBLE" to an output ~~file~~ based on the result.

### Task-3

The code finds strongly connected components in a directed graph using kosaraju algorithm and write the components to an output file.