Task 4:

BFS in adjacency matrix:
Here, the time complexity of for checking node
is com connected to its corresponding row, therefore
it will be $O(V)$. In total, the total time
cmp complexity will be $O(V^2)$.

BFS in adjacency list:
In adjacency list, to check all nodes to the
time complexity will be $O(E)$. Again, for adding
node in the queue., popipi poping node the
time complexity becomes O to $O(V)$.

∴ Time Complexity = $O(V+E)$.

DFs in Adjacency list :

In this algo. the time to complexity to visit all nodes in $O(V)$. Again, the time take for traversing through the connected nodes is $O(E)$.

∴ Total time complexity = $O(V+E)$

DFS in adjacency matrix !

The time complexity of DFS in adjacency matrix is similar to BFS which is $O(V^2)$ for every node.

In this particular scenario, the usage of DFS is more suitable because the redundant nodes are avoided in DFS.

∴ Gary will reach their destination first.