3a) It is not possible for a graph with 5 vertices to have the following degrees 2, 3, 3, 3, and 5. The reason for that is because the max number of degrees a graph can have is n - 1 so therefore a vertice with degree 5 in a graph where it has 5 vertices 0P is not possible

3b.1)

     BFS Order

     A -> B -> D -> C -> E -> G -> H -> F

3b.2)

     DFS Order

     A -> D -> C - > B -> G -> F -> E -> H

3c) v1, v5, v0, v3, v2, v4, v6, v7