Assignment 3

To determine if a undirected graph is a tree or not you need to check if the graph is connected and contains no cycle .Connected means if all vertices is passed and there is a path between them you can do this using DFS or BFS after doing either if all vertices are shown then it is connected. To check if it contains a cycle or not , use DFS as we used in the algorithm .

Also after checking both both check if the numebr of edges is less than the number of vertices by 1 this ensures it is a tree.

The running time is O(V + E) because if you use either DFS AND BFS both are O(V + E).