**CP 213 DATA STRUCTURES AND ALGORITHMS ANALAYSIS**

**ACADAEMIC YEAR 2021/2022**

**TREE DATA STRUCTURE**

**Instructions**:

* *This is weekly individual reading assignment.*
* *Use the given leading questions to read and write a summarized report.*
* *Deadline of report preparation is on 02/01/2021.*
* ***QUESTION 11 IS A GROUP LAB WORK, attach your group lab report at your individual reading report.***
* *Your report heading should be:*

*READING ASSIGNMENT ONE*

*TREE DATA STRUCTURE*

*25/12/2021 – 02/01/2022*

1. What is a general tree?
2. Explain the terminologies used to explain the tree data structure.
3. What is a graph?
4. Explain the deference between directed and un directed graph.
5. What is a binary tree?
6. Differentiate between general and binary tree data structure.
7. Explain the uses of tree data structure in computing.
8. What is searching algorithm in data structures? Explain two basic category of searching algorithm.
9. With examples, explain Binary Search Algorithms.
10. Use a concept of stack and queue to demonstrate basic searching algorithm. Use undirected graph in your demonstration.
11. **Write a CPP program to implement binary tree.**

**Heri ya XMASS na Mwaka Mpya.**