

9. This is a constrained version of a linked list where nodes can be inserted and deleted only from the start of the list:

- a) Queue
- b) Double Linked
- c) Sorted
- d) Stack
- e) None of the above

Answer: d (22/24 correct 91.67%)

10. This type of list is considered a First In, First Out list:

- a) Queue
- b) Stack
- c) Double Linked
- d) Sorted
- e) None of the above

Answer: a (24/24 correct 100%)

11. This list type is a non-linear, two-dimensional structure containing nodes with two or more links:

- a) Binary Tree
- b) Queue
- c) Stack
- d) Tree
- e) Sorted
- f) None of the above

Answer: d (20/24 correct 83.33%)

12. The first node in any tree is called the:

- a) First
- b) Root
- c) Top
- d) Parent
- e) None of the above

Answer: b (21/24 correct 87.50%)

13. Each node in a tree points to a:

- a) Child
- b) Root
- c) Next
- d) Right or Left
- e) None of the above

Answer: a (21/24 correct 87.50%)

14. This type of tree is a single or double linked list that allows you to put the values in order based on a key:

Knowledge Probe Questions

- a) Binary Tree
- b) Tree
- c) Queue
- d) Sorted
- e) None of the above

Answer: d (22/24 correct 91.67%)

15. A weighted binary tree is used because it is easier to:

- a) Sort
- b) Insert
- c) Search
- d) Remove
- e) None of the above

Answer: c (18/24 correct 75.00%)

V. Write the ListNode and List classes for a queued data structure that contains a complex number including all necessary header files (assume the complex class – complex.h – has already been defined, similar to the one in part III). **(15 points)**

Average Points on Answer: 11/15 points 73.33%

Grade Distribution: 30 students enrolled, 3 withdrew or changed grading option (CR/NC)

3 F's (did not turn in final exam, were not counted in grades above)

0 D's

6 C's

2 B's

16 A's