CS 14 - Summer 2004 - Quiz 1

August 3, 2004

1 Multiple Choice

Fill in the bubble of the single-best answer for each question.
Do NOT make any unrequested marks on your answer sheet. You may use pen or pencil, but if you want to change an answer, you MUST erase completely. Marks that are "X"ed out will be counted as filled.

1. A *stack* is a FIFO.
   (a) True
   (b) **False**
2. A *stack* built using ADT List adds to a different end of the list than it removes from.
   (a) True
   (b) **False**
3. A *stack* using a linked-list can be implemented so that both the *push* and *pop* operations take a constant number of operations, regardless of the size of the list.
   (a) **True**
   (b) False
4. A *queue* is a FIFO.
   (a) **True**
   (b) False
5. A *queue* can be implemented as a singly-linked list where *enqueue* and *dequeue* take a constant number of operations, regardless of the size of the list.
   (a) **True**
   (b) False
6. You can only write an iterator for a Linked-List
   (a) True
   (b) **False**

7. For *ADT List*, which of these is not part of the basic set of operations?

   (a) Size
   (b) **Insert At Tail**
   (c) Retrieve
   (d) Delete

8. A *linked-list* can never:

   (a) Have links pointing forward and backward
   (b) **Print its contents without loops or recursion**
   (c) Be sorted
   (d) Be empty
   (e) None of the above

9. Which of the following statements about Iterators is *not* true

   (a) Iterators behave similarly to pointers
   (b) Iterators allow fast sequential access to the data
   (c) Iterators can let you change the value of each node in a Linked List
   (d) **Iterators can let you change the pointers in a Linked List**
   (e) STL uses iterators

10. An uncaught exception (one that matches no *catch* blocks) will

    (a) End the function it was thrown in
    (b) **Terminate the program**
    (c) End the *try* block, but not execute any *catch*
    (d) Do nothing
    (e) None of the above
    (f) Not enough information