CSE 220 Spring 2014, Sec 1 ID : _____

Quiz 1, Feb 16, 2014 Name : _____

Marks: ____ out of 10

1. Suppose you have a Linear Array of size elements. Write down the shiftLeft() method which shifts all the elements of the array to left by k positions. Again, note that "size" is the number of elements in the array, which may be less than the capacity. [5 marks]

```
/**
* Shifts all the elements of the array left by k positions.
* @param a the linear array.
* @param size the number of elements in the array (size <= a.length)
* @param k the number of positions to shift left by
* @throws IllegalShiftException if k < 0 or k > size
*/
public static void shiftLeft(Object[] a, int size, int k) {
      // TO DO
}
```

2. Suppose you have a Circular Array of size elements which starts at index start. Write the search() method which returns the **offset of given element relative to start** if it exists in the array. Return -1 otherwise. Again, note that "size" is the number of elements in the array, which may be less than the capacity. [5 marks]

```
/**
* returns the offset of given element relative to start
* @param c the circular array.
* @param size the number of elements in the array (size <= c.length)
* @param elem the element for searching
* @returns the offset of given element relative to start. returns -1 if
* it doesn't exist in the circular array
*/
public static int search(Object[] c, int size, Object elem) {
      // TO DO
}
```