

Sorting

1. A sorting algorithm is said to be **stable** if two objects with equal keys appear in the same order in sorted output as they appear in the input array to be sorted.

Which of the following sort is stable?

- a) Selection sort
- b) Insertion sort
- c) Merge sort

2. In less than 5 sentences, describe the bigO and behavior of the following sorting algorithms when it is applied to an unsorted list of size n.

- i) Insertion sort
- ii) Selection sort
- iii) Mergesort