

## Quick Questions

1. Mergesort guarantees to sort an array in \_\_\_\_\_ time, regardless of the input:
  - A. Linear time
  - B. Quadratic time
  - C. Linearithmic time**-----
  - D. Logarithmic time
  
2. The main disadvantage of MergeSort is:
  - A. It is difficult to implement
  - B. It uses extra space in proportion to the size of the input**-----
  - C. It is an unstable sort
  - D. None of the above
  
3. Merge sort makes use of which common algorithm strategy?
  - A. Dynamic Programming
  - B. Branch-and-bound
  - C. Greedy approach
  - D. Divide and conquer** -----
  
4. Which sorting algorithm will take the least time when all elements of the input array are identical?
  - A. Insertion Sort**-----
  - B. MergeSort
  - C. Selection Sort
  - D. Bogo Sort
  
5. Which sorting algorithm should you use when the order of input is not known?
  - A. Mergesort** -----
  - B. Insertion sort
  - C. Selection sort
  - D. Shell sort