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**NORTH AMERICAN  
UNIVERSITY**  
INSPIRATION INNOVATION GLOBAL COMPETENCE



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Dashboard > My courses > COMP > COMP 5327.Advanced Algorithms.2019SPR.s1 > 4 February - 10 February > Quiz 3

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**Started on** Sunday, 10 February 2019, 1:38 PM

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**State** Finished

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**Completed on** Sunday, 10 February 2019, 1:58 PM

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**Time taken** 20 mins 8 secs

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**Grade** **7.00** out of 10.00 (**70%**)

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**Question 1**

Correct

Mark 1.00 out of 1.00

Which of the following problems CANNOT be solved using brute force approach?

Select one:

- ☐ a. All of the options
- ☐ b. Combinatorial Problems
- ☐ c. Travelling Salesman Problem
- ☒ d. None of the options ✓
- ☐ e. Knapsack Problem

Your answer is correct.

The correct answer is: None of the options

**Question 2**

Incorrect

Mark 0.00 out of 2.00

The asymptotic time complexity of a recursive and non-recursive version of solution to solve a problem is always the same.

Select one:

- ☒ True ✗
- ☐ False

The correct answer is 'False'.

**Question 3**

Correct

Mark 1.00 out of 1.00

Which of the following sorting algorithms are prime candidates for brute force approach to problem solving? (You can check more than one option)

Select one or more:

- ☐ a. Quick Sort
- ☒ b. Bubble Sort ✓
- ☐ c. Heap Sort
- ☐ d. Merge Sort
- ☒ e. Selection Sort ✓

Your answer is correct.

The correct answers are: Selection Sort, Bubble Sort

**Question 4**

Correct

Mark 1.00 out of 1.00

Most problems that can be solved using brute force approach can have optimal solutions designed using other algorithm design approaches.

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

**Question 5**

Correct

Mark 1.00 out of 1.00

Linear search is based on brute force approach to problem solving

Select one:

- ☒ True ✓
- ☐ False

The correct answer is 'True'.

**Question 6**

Correct

Mark 1.00 out of 1.00

The worst-case complexity of bubble sort to sort an input of size  $n$  is

Select one:

- ☐ a.  $O(n)$
- ☐ b.  $O(1)$
- ☐ c.  $O(n \log n)$
- ☒ d.  $O(n^2)$  ✓
- ☐ e.  $O(\log n)$

Your answer is correct.

The correct answer is:  $O(n^2)$

**Question 7**

Correct

Mark 2.00 out of 2.00

Which of the following is NOT true about brute force approach to problem solving?

Select one:

- ☐ a. They provide yardstick to judge other algorithm design strategies
- ☐ b. All of the options
- ☒ c. None of the options ✓
- ☐ d. Rarely produces efficient algorithms
- ☐ e. It is a straightforward algorithm design strategy
- ☐ f. Produces simple algorithms to solve problems based on concepts

Your answer is correct.

The correct answer is: None of the options

**Question 8**

Incorrect

Mark 0.00 out of 1.00

Exhaustive search, sequential search and linear search are different names to same searching algorithm.

Select one:

- ☒ True ✗
- ☐ False

The correct answer is 'False'.

