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NORTH AMERICAN UNIVERSITY
INSPIRATION INNOVATION GLOBAL COMPETENCE

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Started on	Saturday, 3 December 2016, 3:32 PM
State	Finished
Completed on	Saturday, 3 December 2016, 3:40 PM
Time taken	7 mins 20 secs
Marks	6.00/7.00
Grade	**85.71** out of 100.00

Question 1

Correct Mark 1.00 out of 1.00

Which one is not an O(N log N) algorithm?

Select one:

- a. Heap Sort
- b. Merge Sort
- c. Counting Sort ✓
- d. Quick Sort

Your answer is correct.

The correct answer is: Counting Sort

Question 2

Incorrect Mark 0.00 out of 1.00

Which algorithm work best for the following input?
100,000 integers with values between 0 and 10 million

Select one:

- a. Count Sort ✗
- b. Bucket Sort
- c. Selection Sort
- d. Merge Sort

Your answer is incorrect.

The correct answer is: Bucket Sort

Question 3

Correct Mark 1.00 out of 1.00

Which algorithm work best for the following input?
100,000 integers with values between 0 and 1,000

Select one:

- a. Merge Sort
- b. Selection Sort
- c. Insertion Sort
- d. Counting Sort ✓

Your answer is correct.

The correct answer is: Counting Sort

Question 4

Correct Mark 1.00 out of 1.00

Which algorithm work best for the following input?
100,000 names

Select one:

- a. Bucket Sort
- b. Count Sort
- c. Merge Sort ✓
- d. Selection Sort

Your answer is correct.

The correct answer is: Merge Sort

Question 5

Correct Mark 1.00 out of 1.00

What is the name of the following sorting algorithm?

```
def Function(list):
    # Loop the number of elements in the list
    for i in xrange(1,len(list)):
        # save the value to be positioned
        value = list[i]
        # Find the position where value fits
        # in the ordered part of the list
        pos = i
        # Checking conditions
        while pos > 0 and value < list[pos - 1]:
            # shift the items during the search
            list[pos] = list[pos - 1]
            pos -= 1
        # Add it to empty space
        list[pos] = value
    return list
```

Select one:

- a. Selection Sort
- b. Bubble Sort
- c. Insertion Sort ✓
- d. Merge Sort

Your answer is correct.

The correct answer is: Insertion Sort

Question 6

Correct Mark 1.00 out of 1.00

How can you fix following binary search?

```
def BinarySearch(values,target):
    min = 0
    max = len(values) - 1
    while (min <= max):
    # Find the dividing item.
        [missing code]
        # See if we need to search the left or right half.
        if (target < values[mid]):
            max = mid - 1
        elif (target > values[mid]):
            min = mid + 1
        else: return mid

# If we get here, the target is not in the array.
    return -1
```

Select one:

- a. mid = max / 2
- b. max = (min + max) / 2
- c. min = (min + max) / 2
- d. mid = (min + max) / 2 ✓

Your answer is correct.

The correct answer is: mid = (min + max) / 2

Question 7

Correct Mark 1.00 out of 1.00

What is the complexity of Interpolation Search?

Select one:

- a. O(N)
- b. O(log N)
- c. O(N*N)
- d. O(log (log N)) ✓

Your answer is correct.

The correct answer is: O(log (log N))