1. Two main measures for the efficiency of an algorithm are  
a) Processor and memory  
b) Complexity and capacity  
c) Time and space  
d) Data and space

Answer: c  
Explanation: Depending on the time and space complexity only the algorithm for sorting will be chosen.

2. The time factor when determining the efficiency of an algorithm is measured by  
a) Counting microseconds  
b) Counting the number of key operations  
c) Counting the number of statements  
d) Counting the kilobytes of algorithm

Answer: b  
Explanation: The operations taking place with the time and space is counted.

3. The space factor when determining the efficiency of an algorithm is measured by  
a) Counting the maximum memory needed by the algorithm  
b) Counting the minimum memory needed by the algorithm  
c) Counting the average memory needed by the algorithm  
d) Counting the maximum disk space needed by the algorithm

Answer: a  
Explanation: Time complexity maintains the maximum time needed.

4. Which of the following case does not exist in complexity theory  
a) Best case  
b) Worst case  
c) Average case  
d) Null case

Answer: d  
Explanation: Null case cannot be counted as the factor for complexity.

5. The Worst case occur in linear search algorithm when  
a) Item is somewhere in the middle of the array  
b) Item is not in the array at all  
c) Item is the last element in the array  
d) Item is the last element in the array or is not there at all

Answer: d  
Explanation: Algorithmic complexity is concerned about how fast or slow particular algorithm performs.

6. The Average case occur in linear search algorithm  
a) When Item is somewhere in the middle of the array  
b) When Item is not in the array at all  
c) When Item is the last element in the array  
d) When Item is the last element in the array or is not there at all

Answer: a  
Explanation: Algorithmic complexity is concerned about how fast or slow particular algorithm performs.

7. The complexity of the average case of an algorithm is  
a) Much more complicated to analyze than that of worst case  
b) Much more simpler to analyze than that of worst case  
c) Sometimes more complicated and some other times simpler than that of worst case  
d) None of the mentioned

Answer: a  
Explanation: Algorithmic complexity is concerned about how fast or slow particular algorithm performs.

8. The complexity of a linear search algorithm is  
a) O(n)  
b) O(log n)  
c) O(n2)  
d) O(n log n)

Answer: a  
Explanation: It refers to n values complexity in the algorithm which can be reduced by choosing the other algorithms.

9. The complexity of Binary search algorithm is  
a) O(n)  
b) O(log )  
c) O(n2)  
d) O(n log n)

Answer: b  
Explanation: This shows that it has a standard complexity in addressing.

10. The complexity of Bubble sort algorithm is  
a) O(n)  
b) O(log n)  
c) O(n2)  
d) O(n log n)

Answer: c  
Explanation: Bubble sort, is a simple sorting algorithm that works by repeatedly stepping through the list to be sorted, comparing each pair of adjacent items and swapping them if they are in the wrong order.