



Quiz-1

8 Questions

NAME : _____

CLASS : _____

DATE : _____

1. Pseudocode is independent of language and machine.

☐ a) True

☐ b) False

2. A single problem must have a single algorithm.

☐ a) True

☐ b) False

3. An algorithm performing differently on different machines must be corrected.

☐ a) True

☐ b) False

4. Time complexity 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 a program

5. In a Random Access Machine Model, all instructions are considered to be run sequentially.

☐ a) True

☐ b) False

6. 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

7.

```
void foo (int n, int x, int y) {  
    for (int i = 0; i < n; i++) {  
        if (x < y)  
            for (int k = 0; k < n*n; ++k) {  
                printf ("k = %d\n", k);  
            }  
        else  
            printf ("i = %d\n", i);  
    }  
}
```

For the following code, perform line-by-line analysis to determine the time complexity of function foo in terms of Big-Oh notation.

8.

```
void foo (int n) {  
    for (int i = 0; i < n; i++) {  
        for (int j = 0; j < i; ++j) {  
            printf ("j = %d\n", j);  
        }  
        for (int k = 0; k < n*3; ++k) {  
            printf ("k = %d\n", k);  
        }  
    }  
}
```

For the following code, perform line-by-line analysis to determine the time complexity of function foo in terms of Big-Oh notation.
