CIS 210 Winter 2017 - Week 1 Quiz

0. Consider the code segment below:

```plaintext
IF onTime
    display "Hello."
ELSE
    IF absent
        display "Is anyone there?"
    ELSE
        display "Better late than never."
```

If the variables onTime and absent both have the value False, what is displayed as a result of executing the code segment?

(A) Is anyone there?  (B) Better late than never.  (C) Hello. Is anyone there?  (D) Hello. Better late than never.

1. A dependent child can be very loosely defined as a person under 18 years of age who does not earn $10,000 or more a year. An expression that would define a dependent child is

(A) (age < 18) AND (salary < 10000)  (B) (age < 18) OR (salary < 10000)
(C) (age <= 18) AND (salary < 10000)  (D) (age <= 18) OR (salary <= 10000)

2. Given the following code, where the variables `p`, `q`, and `result` all have integer values:

```plaintext
p ≡ 1
q ≡ 2
result ≡ 4
IF (p < q)
    IF (q > 4)
        result ≡ 5
    ELSE
        result ≡ 6
```

What would be the value of `result` after the code is executed?

(A) 2  (B) 4  (C) 5  (D) 6

3. Given the following code, where the variables `count`, `balance`, and `deposit` all have numeric values:

```plaintext
count ≡ 0
WHILE (count < 357)
    balance ≡ balance + deposit
    count ≡ count + 1
```

How many times will the body of the loop be executed?  

(A) 1  (B) 356  (C) 357  (D) 358
4. Given the following code, where the variables `result` and `i` have numeric values and `nums` is a list of integers:

```
result ← 0
i ← 0
WHILE i < length(nums)
    IF nums[i] < 0
        result ← result + 1
    i ← i + 1
```

What is the purpose or outcome of this section of code?

(A) to find the smallest element in a list of numbers
(B) to count the negative numbers in a list of numbers
(C) to count the numbers in a list of numbers
(D) to sort a list of numbers

5. Consider the following program code, where `i` and `sum` have integer values:

```
i ← 0
sum ← 0
REPEAT UNTIL i = 4
    i ← 1
    sum ← sum + 1
    i ← i + 1
DISPLAY sum
```

Which of the following best describes the result of running the code?

(A) The number 0 is displayed.
(B) The number 6 is displayed.
(C) The number 10 is displayed.
(D) Nothing is displayed; the program results in an infinite loop.

6. Given the following code, where `x` is an integer:

```
x ← 0
x ← x + 1
x ← x + 2
```

What is the value of `x` after the code has been executed?

(A) 0  (C) 2
(B) 1  (D) 3
7. A summer camp offers a morning session and an afternoon session. The list `morningList` contains the names of all children attending the morning session, and the list `afternoonList` contains the names of all children attending the afternoon session.

Only children who attend both sessions eat lunch at the camp. The camp director wants to create `lunchList`, which will contain the names of children attending both sessions.

The following code segment is intended to create `lunchList`, which is initially empty. It uses the function `isFound(list, name)` which returns `True` if name is found in list and returns `False` otherwise.

```
FOR EACH child IN morningList
    {<MISSING CODE>}
```

Which of the following could replace `<MISSING CODE>` so that the code segment works as intended?

(A) IF (isFound(afternoonList, child))
    { APPEND(lunchList, child) }

(B) IF (isFound(lunchList, child))
    { APPEND(afternoonList, child) }

(C) IF (isFound(morningList, child))
    { APPEND(lunchList, child) }

(D) IF ( (isFound(morningList, child)) OR (isFound(afternoonList, child)) )
    { APPEND(lunchList, child) }