

AP Computer Science A

Name: _____ Score: _____

1. Choosing which code to run based on a condition is called...

- ☐ sequence
- ☐ selection
- ☐ repetition
- ☐ an error

2. Which operator tests whether two values are equal?

- ☐ !=
- ☐ <=
- ☐ =
- ☐ ==

3. In an if-else statement, how many of the two branches run?

- ☐ neither
- ☐ it depends on braces
- ☐ both
- ☐ exactly one

4. In an else-if ladder, which condition's block runs?

- ☐ the shortest one
- ☐ the first one that is true
- ☐ all true ones
- ☐ the last one that is true

5. `a && b` is true when...

- ☐ neither is true
- ☐ a is false
- ☐ both a and b are true
- ☐ at least one is true

6. `int i=1, sum=0; while (i<=5){ sum+=i; i++; }` What is sum at the end?

7. How many times does the body of `for (int i = 0; i < 5; i++)` run?

8. Putting the accumulator's initialization inside the loop resets it every pass.

☐ True ☐ False

9. How many characters does a loop visit for the String "HELLO" (using `i < length()`)?

10. For $n = 1000$, about how many steps is an n^2 algorithm (in millions)?

AP Computer Science A

1. **selection**

Selection (if) picks a path; repetition (loops) repeats a block.

2. **==**

== tests equality; = assigns.

3. **exactly one**

Exactly one branch runs based on the condition.

4. **the first one that is true**

Java takes the first true condition top to bottom.

5. **both a and b are true**

&& (AND) needs both operands true.

6. **15**

$1+2+3+4+5 = 15$.

7. **5**

i takes $0,1,2,3,4 \rightarrow 5$ passes.

8. **True**

Initialize before the loop, not inside it.

9. **5**

Indices $0..4 \rightarrow 5$ characters.

10. **1**

$1000^2 = 1,000,000 = 1$ million.