## AP® COMPUTER SCIENCE A GENERAL SCORING GUIDELINES

Apply the question assessment rubric first, which always takes precedence. Penalty points can only be deducted in a part of the question that has earned credit via the question rubric. No part of a question (a, b, c) may have a negative point total. A given penalty can be assessed only once for a question, even if it occurs multiple times, or in multiple parts of that question. A maximum of 3 penalty points may be assessed per question.

## 1-Point Penalty

- (w) Extraneous code that causes side effect (e.g., printing to output, incorrect precondition check)
- (x) Local variables used but none declared
- (y) Destruction of persistent data (e.g., changing value referenced by parameter)

## Mr Lee's 1-Point Penalty:

- Inefficient, "long winded" or "messy" difficult to understand code which takes longer to write than standard more efficient solutions.
  - o In an exam you need to save time by writing quickly hand writable efficient code which is easy for AP readers to understand.

## **No Penalty**

- Extraneous code with no side effect (e.g., precondition check, no-op)
- Spelling/case discrepancies where there is no ambiguity\*
- Local variable not declared provided other variables are declared in some part
- Keyword used as an identifier
- Common mathematical symbols used for operators  $(x \bullet \div \leq \geq < > \neq)$
- = instead of == and vice versa
- Missing {} where indentation clearly conveys intent
- Missing () around if conditions

<sup>\*</sup> Spelling and case discrepancies for identifiers fall under the "No Penalty" category only if the correction can be unambiguously inferred from context; for example, "total" instead of "totl". As a counterexample, that if the code declares "int G=99, g=0; ", then uses "while (G<10)" instead of "while (g<10)", the context does not allow for the reader to assume the use of the lower-case variable.

if – PH FRQ

A chemical solution is said to be acidic if it has a pH integer value from 1 to 6 inclusive. The lower the pH, the more acidic the solution. An experiment has three chemical solutions.

Write a code segment that prints the pH of the most acidic solution. If there are no acidic solutions in the experiment, the code segment should print -1.

For example, suppose the experiment has this state:

int 
$$s0 = 7$$
,  $s1 = 4$ ,  $s2 = 10$ ;

The code segment should print 4.

**Precondition:** All pH values are valid (i.e. 1 - 14).