QUIZ 2 SOFTWARE TESTING 1

YOUR NAME: _____

IS THERE A REASON THAT I SHOULD NOT GRADE THIS TEST?

_____

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1. Complete statement and branch coverage means
   A. That you have tested every statement in the program.
   B. That you have tested every statement and every branch in the program.
   C. That you have tested every IF statement in the program.
   D. That you have tested every combination of values of IF statements in the program

I expected B
D is multicondition coverage. D is to branch coverage like path testing is to statement coverage.

2. Which is the best definition of complete testing:
   A. You have discovered every bug in the program.
   B. You have tested every statement, branch, and combination of branches in the program.
   C. You have completed every test in the test plan.
   D. You have reached the scheduled ship date.

I expected A. How can testing be complete if there are still bugs remaining?

3. A defect arrival rate curve
   A. Shows the number of newly discovered defects per unit time
   B. Shows the number of open defects per unit time.
   C. Shows the cumulative total number of defects found up to this time.
   D. Any of these, depending on the company.

I expected A

4. We can achieve complete statement coverage but still miss bugs because (choose one or two of the following):

A. The failure occurs only if you reach a statement taking the TRUE branch of an IF statement, and you got to the statement with a test that passed through the FALSE branch.
B. The failure depends on the program's inability to handle specific data values, rather than on the program's flow of control.
C. We are not required to test code that customers are unlikely to execute.
D. All of the above

I expected (and required) A and B
C cannot be correct, because it leaves some statements untested.

5. Measurement dysfunction is a problem because:
A. Even though the numbers you look at appear better, to achieve these numbers, people are doing other aspects of their work much less well.
B. We don't know how to measure a variable (our measurement is dysfunctional) and so we don't know how to interpret the result.
C. You are measuring the wrong thing and thus reaching the wrong conclusions.
D. All of the above.

I expected A.
B sounds good, but it has nothing to do with measurement dysfunction.

6. According to the lecture, there are several risks of managing your project's schedule with a statistical reliability model. These include (choose one or two of the following):
A. Testers spend more energy early in the product trying to find bugs than preparing to do the rest of the project's work more efficiently
B. Managers might not realize that the testing effort is ineffective, late in the project, because they expect a low rate of bug finding, so the low rate achieved doesn't alarm them.
C. It can increase the end-of-project pressure on testers to not find bugs, or to not report bugs.
D. All of the above

I expected D

7. Important consequences of the impossibility of complete testing are (Choose one or two answers):
A. We can never be certain that the program is bug free.
B. We have no definite stopping point for testing, which makes it easier for some managers to argue for very little testing.
C. We have no easy answer for what testing tasks should always be required, because every task takes time that could be spent on other high importance tasks.
D. All of the above.

I expected D

8. In the MASPAR case study:
    A. Security failures were the result of untested parts of code.
    B. The development team achieved complete statement and branch coverage but missed a serious bug in the MASPAR operating system.
    C. An error in the code was so obscure that you had to test the function with almost every input value to find its two special-case failures.
    D. All of the above.

I accepted C.
A is simply mistaken.