

**Multiple-Choice Questions:**

1. True or false? Generally, in practice, developers exhaustively test software.
  - a. True
  - b. False
  
2. True or false? All “real” software contains bugs.
  - a. True
  - b. False
  
3. Which of the following is not a desirable quality of a unit test?
  - a. No I/O
  - b. Fast
  - c. Non-deterministic
  - d. Tests one property
  - e. None of the above
  
4. Which of the following is true of *exhaustive testing*?
  - a. Generally infeasible in practice
  - b. Tests all possible inputs
  - c. Typically results in an intractably large set of test cases even for small programs
  - d. All of the above
  - e. None of the above

5. Which of the following is not a difference between unit tests and integration tests?
- a. Unit tests should not perform I/O, whereas integration tests may do so
  - b. Unit tests should be deterministic, whereas integration tests may have non-determinism
  - c. Unit tests should be fast (less than half a second), whereas integration tests may be slower
  - d. Unit tests must be black-box tests, whereas integration tests must be white-box tests
  - e. None of the above (they are all differences)
6. Which of the following is not a difference between black-box and white-box testing?
- a. Black-box tests are based only on the interface of a component, whereas white-box tests are based on the implementation
  - b. Black-box tests often focus on boundary cases, whereas white-box tests tend not to
  - c. White-box tests often aim to achieve particular levels of code-coverage, whereas black-box tests do not
  - d. White-box tests are made by programmers, whereas black-box tests are made by ordinary users
  - e. None of the above (they are all differences)
7. In \_\_\_\_\_, you hook everything together and treat the system like a black box.
- a. test-driven development
  - b. system testing
  - c. unit testing
  - d. integration testing
  - e. None of the above

**Solutions:**

1. b

2. a

3. c

4. d

5. d

6. d

7. b