Multiple Choice Questions

1. In software quality assurance work there is no difference between software verification and software validation:

   a. True
   b. False

Answer: b

2. The best reason for using Independent software test teams is that
   a. software developers do not need to do any testing
   b. a test team will test the software more thoroughly
   c. testers do not get involved with the project until testing begins
   d. arguments between developers and testers are reduced

Answer: b

3. What is the normal order of activities in which traditional software testing is organized?
   a. integration testing
   b. system testing
   c. unit testing
   d. validation testing
      A) a, d, c, b
      B) b, d, a, c
      C) c, a, d, b
      D) d, b, c, a

Answer: c

4. Class testing of object-oriented software is equivalent to unit testing for traditional software.
   a. True
   b. False

Answer: a

5. By collecting software metrics and making use of existing software reliability models it is possible to develop meaningful guidelines for determining when software testing is finished.
   a. True
   b. False

Answer: a

6. Which of the following strategic issues needs to be addressed in a successful software testing process?
   a. conduct formal technical reviews prior to testing
   b. specify requirements in a quantifiable manner
   c. use independent test teams
   d. wait till code is written prior to writing the test plan
   e. both a and b

Answer: e

7. Which of the following need to be assessed during unit testing?
   a. algorithmic performance
   b. code stability
   c. error handling
   d. execution paths
   e. both c and d

Answer: e

8. Drivers and stubs are not needed for unit testing because the modules are tested independently of one another.
   a. True
   b. False

Answer: b

9. Top-down integration testing has as it's major advantage(s) that
   a. low level modules never need testing
   b. major decision points are tested early
   c. no drivers need to be written
   d. no stubs need to be written
   e. both b and c

Answer: e

10. Bottom-up integration testing has as it's major advantage(s) that

    a. major decision points are tested early

    b. no drivers need to be written

    c. no stubs need to be written

    d. regression testing is not required

Answer: c

11. Regression testing should be a normal part of integration testing because as a new module is added to the system new

    a. control logic is invoked

    b. data flow paths are established

    c. data require testing

    d. all of the above

    e. both a and b

Answer: e

12. Smoke testing might best be described as

    a. bulletproofing shrink-wrapped software

    b. rolling integration testing

    c. testing that hides implementation errors

    d. unit testing for small programs

Answer: b

13. When testing object-oriented software it is important to test each class operation separately as part of the unit testing process.

    a. True

    b. False

Answer: b

14. The OO testing integration strategy involves testing

    a. groups of classes that collaborate or communicate in some way

    b. single operations as they are added to the evolving class implementation

    c. operator programs derived from use-case scenarios

    d. none of the above

Answer: a

15. The focus of validation testing is to uncover places that a user will be able to observe failure of the software to conform to its requirements.
    a. True
    b. False

Answer: a

16. Software validation is achieved through a series of tests performed by the user once the software is deployed in his or her work environment.
    a. True
    b. False

Answer: b

17. Configuration reviews are not needed if regression testing has been rigorously applied during software integration.
    a. True
    b. False

Answer: b

18. Acceptance tests are normally conducted by the
    a. Developer
    b. End users
    c. Test team
    d. System engineers

Answer: b

19. Recovery testing is a system test that forces the software to fail in a variety of ways and verifies that software is able to continue execution without interruption.
    a. True
    b. False

Answer: b

20. Security testing attempts to verify that protection mechanisms built into a system protect it from improper penetration.

      a. True

      b. False

Answer: a

21. Stress testing examines the pressures placed on the user during system use in extreme environments.

      a. True

      b. False

Answer: b

22. Performance testing is only important for real-time or embedded systems.

      a. True

      b. False

Answer: b

23. Debugging is not testing, but always occurs as a consequence of testing.

      a. True

      b. False

Answer: a

24. Which of the following is an approach to debugging?

      a. Backtracking

      b. Brute force

      c. Cause elimination

      d. Code restructuring

      e. a, b and c

Answer: e