Assignment 1

1) A …….. can be a grammatical or logical error in trying to comply with one or more of the client's requirements included in one or more of the code lines.
   A) software error
   B) software fault
   C) software failure
   D) software engineering
2) A …….. is a software error which can cause improper functioning of the software in general or of a specific application.
   A) software error
   B) software fault
   C) software failure
   D) software engineering
3) A …….. is a failure that has been "activated" and causes improper functioning of the software as a whole or of a specific, faulty application.
   A) software error
   B) software fault
   C) software failure
   D) software engineering
4) The probability that the "Super-lab" software system will be found in a state of failure during peak hours (9 am to 4 pm) is required to be below 0.5%.
   A) Reliability.
   B) Interoperability
   C) Correctness
   D) Flexibility
5) The "Super-lab" software system will enable direct transfer of laboratory results to those files of hospitalized patients managed by the "MD-File" software package.
   A) Reliability.
   B) Interoperability
   C) Correctness
   D) Flexibility
6) The "Super-lab" software system will include a module that prepares a detailed report of the patient's laboratory test results during his current hospitalization. (This report will serve as an appendix to the family physician's file.) The time required to obtain this printed report will be less than 60 seconds; the level of accuracy and completeness will be at least 99%.
   A) Reliability.
   B) Interoperability
   C) Correctness
   D) Flexibility
7) The "Super-lab" software to be developed for hospital laboratory use may be adapted later for private laboratory use.
   A) Reliability.

B) Interoperability
C) Correctness
D) Flexibility

8) The training of a laboratory technician, requiring no more than 3 days, will enable the technician to reach level C of "Super-lab" software usage. This means that he or she will be able to manage reception of 20 patients per hour.
A) Usability
B) Integrity
C) Reusability
D) Correctness

9) The "Super-lab" software system will record a detailed users' log. In addition, the system will report attempts by unauthorized persons to obtain medical information from the laboratory test results database. The report will include the following information: the network identification of the applying terminal, the system code of the employee who requested that information, the day and time of attempt and the type of attempt.
A) Usability
B) Integrity
C) Reusability
D) Correctness

10) The "Super-lab" subsystem that deals with billing patients for their tests may be eventually used as a subsystem in the "Physiotherapy Center" software package.
A) Usability
B) Integrity
C) Reusability
D) Correctness

11) The "Super-lab" software package developed for the Linux operating system should be compatible for applications in a Windows NT environment.
A) Reliability.
B) Portability
C) Correctness
D) Flexibility

1. When should the testers start reviewing project documents?

A. When they have ben base lined and approved
B. After the first revision
C. As soon as a draft is available
D. When the developers have started coding

2. Why is important to do when working with software development models?

A. To adapt the models to the context of project and product characteristics
B. To choose the waterfall model because it is the first and best proven model
C. To start with the v- model and then move to either iterative or incremental models
D. To only change the organization to fit the model and not vice versa

3. Which of the following characteristics of good testing apply to any software? development life cycle model?

A. Acceptance testing is always the final test level to be applied
B. All test levels are planned and completed for each developed feature
C. Testers are involved as soon as the first piece of code can be executed
D. For every development activity there is a corresponding testing activity

4. Which iterative model consist of relatively short iterations (e.g., few weeks) and produces small features increments?

A) Relational unified process
B) Scrum
C) Kanban
D) Rapid technology

5. Which iterative model may or may not have fixed length iterations?

A. Relational unified process
B. Scrum
C. Kanban
D. Rapid technology

Test levels

6. which testing level is primarily focused on building confidence rather than finding defects?

A. Unit testing
B. Integration testing
C. System testing
D. Acceptance testing

7. If you need to add system integration testing as a test level for a particular project, what testing level should it directly follow?

A. Component
B. Component integration
C. System

D. Acceptance

8. In which test level are the developers most heavily involved?
   A. Compatibility
   B. Acceptance
   C. Component
   D. Conversion

9. Which of the following is a characteristics of well managed test level?
   A. It has a target duration of one month
   B. It has a corresponding test objective
   C. It does not overlap with another test level
   D. It applies a single test design

10. Which of the following comparisons of component testing and system testing is true?
    A. Component testing verifies the functioning of software modules, program objects, and classes that are separately testable, whereas system testing verifies interface between components and interactions with different parts of the system
    B. Test case for component testing are usually derived from component specification design specification or data models, whereas test case for system testing are usually derived from requirement specifications, functional specifications characteristics
    C. Component testing focuses on functional characteristics, whereas system testing on functional and non-functional characteristics
    D. Component testing is the responsibility of the technical testers, whereas system testing typically is the responsible of the user of the system.

11. Contract & regulation testing is a part of?
    A. System Testing
    B. Acceptance testing
    C. Integration testing
    D. Functional testing

Test types

12. Which of the following is the most correct regrading when functional tests may be executed?
    A. Unit & integration
    B. Integration & system
    C. System & acceptance
    D. All levels
13. Which of the following is the most correct regrading when non-functional tests may be executed?
    A. Unit & integration
    B. Integration & system
    C. System & acceptance

D. All levels

14. Usability testing is an example of which type of testing?
    A. Functional
    B. Non-functional
    C. Structural
    D. Change related

15. Which of the following is an important characteristic of test used for regression testing?
    A. They focus on testing the intricate and difficult-to-test aspects of the software
    B. They require significant maintained effort for each release
    C. They are used for one release and are then discarded to keep the test set fresh
    D. They are reusable for multiple releases with little maintenance

16. Which statement below BEST describes nonfunctional testing?
    A. The process of testing an integrated system to verify that it meets specified requirements
    B. The process of testing to determine the compliance of a system to coding standards
    C. Testing without reference to the internal structure of a system
    D. Testing system attributes, such as usability, reliability or performance

17. Which of the following statements are true?
    A. Regression testing & acceptance testing are the same
    B. Regression tests show if all defects have been resolved
    C. Regression tests are typically well suited for test automation
    D. Regression test are preformed to find out if code changes have introduced or uncovered defects

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    A. A, C & D are true; B is false
    B. A & C are true; B & D is false
    C. C & D are true; A & B is false
    D. B is true; C & D is false

18. Repeated testing of an already tested program, after modification, to discover any defects introduced or uncovered as a result of the changes in the software being tested or in another related or unrelated software component
    A. Retesting
    B. Confirmation testing
    C. Regression testing
    D. Negative testing

19. Which of the following is a true statement regarding the process of fixing emergency changes?
    A. There is no time to test the change before it goes live, so only the best developers should do this work and should not involve testers as they slow down the process
    B. Only retest of the defect actually fixed
    C. Retest the changed area and then use risk assessment to decide on a reasonable subset of the whole regression test to run in case other parts of the system have been adversely affected

D. Always run a full regression test of the whole system in case other parts of the system have been adversely

Maintenance Testing

20. Which of the following is the correct list of the triggers for maintenance testing?
    A. A component in production is modified, migrated or retired
    B. A fix has been received for a product that is in development
    C. Regression has been discovered in a set of fixes just received from the developer
    D. A new requirement has been received for the software that is currently under test that may result in an architectural change

21. Which of the following is a trigger for maintenance testing?
    A. A new software product is being developed and defects have been found in unit testing
    B. A new software product is being developed and will work across multiple platforms
    C. A component of an existing production software product has been removed
    D. A component of an existing production software product has received high usage

22. Impact analysis help to decide.
    A. How much regression testing should be done?
    B. Exit criteria
    C. How many more test cases need to be written?
    D. Different tools to perform regression testing

1. Which of the following is an important objective of testing activities in the softwaredevelopment lifecycle?

A) Exhaustive Testing
B) Providing decision-making information
C) Clustering defects
D) Debugging

2. When test cases are designed early in the lifecycle, verifying the test basis via the test design,which common test objectives is being achieved?

A) Gaining Confidence
B) Finding defects
C) Preventing defects
D) Providing information for decision making

3. Which of following is an example debugging?

A) A tester finds a defect and report it
B) A tester retests a fix form the developer and finds a regression
C) A developer finds and fixes a defect
D) A developer performs unit testing

4. Which of the following is an example of a defect that cause harm?

A) A usability defect that results in user dissatisfaction
B) A defect that causes slow response time when running reports
C) A defect that causes raw sewage to be dumped into the ocean
D) A regression defect that cause the desktop window to display in green

5. Which of the following statements is the most valid goal for a test team?

A) Determine whether enough component testing executed
B) Cause as many failures as possible so that faults can be identified and corrected
C) Prove that all faults are identified
D) Prove that any remaining faults will not cause any failures

6. Which of the following statements BEST describes the difference between testing anddebugging?

A) Testing pinpoints (identifies the source of) the defects. Debugging analyzes the faults andproposes preventing activities
B) Dynamic testing shows failures caused by defects. Debugging find, analyzes and removes the cause of failures in the software
C) Testing removes faults. Debugging identifies the cause of failures

D) Dynamic testing prevents cause of failures. Debugging removes the failures

Why testing is necessary

7. Recall the activity that removes the cause of a failure.

A) Testing
B) Dynamic Testing
C) Debugging
D) Reverse Engineering

8. Why is software testing sometimes requires for legal reasons?

A) It prevents developer from suing testers
B) Contracts may specify testing requirements that must be fulfilled
C) International laws require software testing for exported products
D) Testing across systems must be accompanied by legal documentation

9. In what way does root cause analysis contribute to process improvement?

A) Helps to better identify the root cause of defects
B) Outline how development team's code faster
C) Specifies the desired root cause to be achieved by other teams
D) Contributes to the justification of future project funding

10. Which of the following is a correct statement?

A) A developer makes a mistake which causes a defect that may be seen as a failure duringdynamic testing
B) A developer makes an error which results in a failure that may be seen as a fault when thesoftware is executed
C) A developer has a failure which results in a defect that may be seen as a mistake during dynamictesting
D) A developer make a mistake which cause a bug that may be seen as a defect when the softwareis executed

11. Which of the following will prevent defects from reoccurring?

A) Rotating developers to keep them motivated
B) Determining the environmental conditions that caused the failure
C) Improving process based on root cause analysis
D) Prioritizing reoccurring defects higher than new defects

12. Below is a list of problems that can be observed during testing or operation.Which is MOST likely a failure?

A) The product crashed when the user selected an option in a dialog box
B) One source code file included in the build was the wrong version
C) The computation algorithm used the wrong input variables
D) The developer misinterpreted the requirement for the algorithm

13. Which of the following statements are TRUE?
    A) Software testing may be required to meet legal or contractual requirements
    B) Software testing is mainly needed to improve the quality of the developer's work
    C) Rigorous testing and fixing of defects found can help reduce the risk of problems occurringin an environment
    D) Rigorous testing is sometime used to prove that all failures have been found

    a) B and C are true, A and D are false
    b) A and D are true, B and C are false
    c) A and C are true, B and D are false
    d) C and D are true, A and B are false

Seven testing principles

14. Why is it important to avoid the pesticide paradox?
    A) Dynamic testing is less reliable in finding bugs
    B) Pesticides mixed with testing can allow bugs to escape detection
    C) Test should not be context dependent
    D) Running the same test over and over reduce the chance of finding new defects

15. Which of the following is a true statement about exhaustive testing?
    A) It is a form of stress testing
    B) It is not feasible except in the case of trivial software
    C) It is commonly done with test automation
    D) It is normally the responsibility of the developer of the developer during unit testing

16. Which of the following statements best describes one of the seven key principles of softwaretesting?
    A) Automated tests are better than manual test for avoiding the exhaustive testing
    B) Exhaustive testing is, with sufficient effort and tool support, feasible for all software
    C) It is normally impossible to test all input\output combinations for a software system
    D) The purpose of testing to demonstrate the absence of defects

17. A test team consistently finds between 90% and 95% of the defect present in the system under test. While the test manager understands that this is a good defect detection percentage for her test team and industry, senior management and executives remain disappointed in the test group saying that the test team misses too many bugs. Given that the users are generally happy with the system and that the failures which have occured havegenerally been low impact, which of the following testing principles is most likely to help thetest manager explain to these managers and executives why some defects are likely to be missed
    A. Exhaustive Testing is impossible
    B. Pesticide paradox
    C. Defect clustering
    D. Absence of error fallacy

18. A programmer is working on code which is very complex. Which of the following is generaltesting principle that may affect his work?
    A) Defect clustering
    B) Pesticide paradox
    C) Exhaustive testing is impossible
    D) Absence of error fallacy

19. According to the ISTQB Glossary, the word "bug" is synonymous with which of the following?
    A) Error
    B) Incident
    C) Defect
    D) Mistake

Testing process

20. Designing and prioritizing test cases occurs during which activity in the fundamental testprocess?
    A) Test planning
    B) Test analysis
    C) Test design
    D) Test completion

21. Defining and prioritizing test conditions based on analysis of the test basis occurs during whichactivity in the fundamental test process?
    A) Test planningB) Test analysis
    C) Test design
    D) Test completion

22. Checking whether all defect report are closed occurs during which activity in the fundamentaltest process?
    A) Test planning
    B) Test analysis
    C) Test design
    D) Test completion

23. Comparing actual result with expected results occurs during which activity in the fundamentaltest process?
    A) Test monitoring & control
    B) Test analysis
    C) Test implementation
    D) Test execution

24. Developing and prioritizing test procedures occurs during which activity in the fundamental testprocess?
    A) Test monitoring & control
    B) Test analysis
    C) Test implementation
    D) Test execution

25. Checking test results and test logs specified coverage criteria occurs during which activity in thefundamental test process?

    A) Test monitoring & control

    B) Test analysis

    C) Test implementation

    D) Test execution

26. Test plans are considered as which type of test work products?
    A) Test planning work products
    B) Test monitoring and control work products
    C) Test analysis work products
    D) Test design products

27. Test progress reports are considered as which type of test work products?
    A) Test planning work products
    B) Test monitoring and control work products
    C) Test analysis work products
    D) Test design work products

28. Test conditions are considered as which type of test work products?
    A) Test planning work products
    B) Test monitoring and control work products
    C) Test analysis work products
    D) Test design work products

29. Test cases are considered as which type of test work products?
    A) Test planning work products
    B) Test monitoring and control work products
    C) Test analysis work products
    D) Test design work products

30. Test suites are considered as which type of test work products?
    A) Test implementation work products
    B) Test execution work products
    C) Test completion work products
    D) Test design work products

31. Defects reports are considered as which of test work products?
    A) Test implementation work products
    B) Test execution work products
    C) Test completion work products
    D) Test design work products

32. Test summary reports are considered as which type of test work products?
    A) Test implantation work products
    B) Test execution work products
    C) Test completion work products
    D) Test design work products

Phycology testing

33. Which characteristic must a tester possess in order to be successful when working with a projectteam?
    A) Constructive communication skills
    B) Authoritarian leadership style
    C) Extroverted personality
    D) Extensive organizational network

34. As a tester, which of following is a key to effectively communicate and maintain positive relationships with developers when there is disagreement over the prioritization of defect?
    A) Escalate the issue to human resource and stress the importance of mutual respect
    B) Communicate in a setting with senior management to ensure everyone understands
    C) Convince the developer to accept the blame for the mistake
    D) Remind them of the common goal of creating quality systems

35. Which of the following, if observed in reviews and tests, would lead to problems (or conflict)Within teams?
    A) Testers and reviews are not curious enough to find defects
    B) Testers and reviewers are not qualified enough to find failures and faults
    C) Testers and reviews communicate defects as criticism against persons and not against thesoftware product
    D) Tester and reviews except that deflects in the software product have already been foundand fixed by the developers

36. Which of the following are aids to good communication and which hinder it?
    I. Try to understand how the other person feels
    II. Communicate personal feelings, concentrating upon individuals
    III. Confirm the other person has understood what you have said and vice versa
    IV. Emphasize the common goal of better quality
    V. Each discussion is a battle to be won
        A. (I), (II) and (III) aid, (IV) and (V) hinder
        B. (III), (IV) and (V) aid, and (I) and (II) hinder
        C. (I), (III), and (IV) aid, (II) and (V) hinder
        D. (II), (III) and (IV) aid, (l) and (V) hinder