重庆大学软件测试理论与方法课程试卷

☑ A卷
☐ B卷

2015—2016 学年　第二学期

开课学院：　软件学院　课程号：　09009720　考试日期：　2016.06.16

考试方式：　○开卷　●闭卷　○其他　　　考试时间：　120 分钟

题 号	一	二	三	四	五	六	七	八	九	十	总 分
得 分											

考试提示

1.严禁随身携带通讯工具等电子设备参加考试；2.考试作弊，留校察看，毕业当年不授学位；请人代考、替他人考试、两次及以上作弊等，属严重作弊，开除学籍。3.请将答案写在答题纸上。

Part 1: Multiple Choice Questions; Circle the correct answer (only one is correct) (40 Points)

1) Software Testing is (　　　)
   A. Installing software and see if it works.
   B. The only process that improves the quality of the software.
   C. Making sure all the defects in a software system are found.
   D. A verification and validation process.

2) White box testing is called White box because (　　　)
   A. You need the permission of your manager.
   B. The tests need to be documented.
   C. The tester needs no programming knowledge.
   D. The tester needs programming knowledge.

3) Dynamic Testing is (　　　)
   A. Part of Unit Testing.
   B. Testing the product together with the customer.
   C. Testing software without executing the software.
   D. The same as Validating the software.

4) Black box testing (　　　)
   A. Requires programming knowledge.
   B. Is the same as Static Code Analysis
   C. Is testing the boundaries of invalid ranges.
   D. Aims to test the software's functionality.

5) The execution of Dynamic Testing methods (　　　)
   A. Is planned in the System Test plan.
   B. Can be done without computers.
   C. Cannot be done without computers.
   D. Is executed, while the code is still being changed.

6) Testing whether you are able to gain access to an application by using SQL Injection, is called (　　　)
   A. SQL Testing.
   B. Stress Testing.
   C. Security Testing.
   D. Acceptance Testing.

7) Boundary Value Analysis is a test technique (　　　)
   A. That is needed to perform Integration Testing
   B. That is used during Static Code Analysis.
   C. That can only be used during White Box tests.
   D. That tests the boundary values of valid and invalid input ranges.

8) A Virtual Simulation is (　　　)
   A. Is a simulated test environment which runs in real time.
   B. Is a simulated test environment in which time can be controlled.
   C. Is a simulated test environment which is based on a sequence of events, instead of time.
   D. The same as a Test Stub.

9) The Cost Effective-Based Test Prioritization Strategy involves (　　　)
   A. Asking the customer how important the tests are in his opinion.
   B. Writing a Test Prioritization Management plan.
   C. Analyzing how dangerous the tests would be.
   D. Analyzing how expensive the tests would be.

10) A way to do Performance Testing is (　　　)
   A. Overclocking the test PC's.
   B. Measuring response times of selected use cases.
   C. Observing how the system behaves during large file copying.
   D. Doing the test extremely fast.

## Part 2: TRUE-FALSE Questions; Check the correct answer. (20 Points)

1) The best software tester is the same person who also wrote the code for the software.   ( )TRUE ( )FALSE
2) Debugging software is the same as Black Box Testing.
          ( )TRUE ( )FALSE
3) Static Code Analysis is done during the Customer Acceptance Test.
          ( )TRUE ( )FALSE
4) A system that aims to duplicate the inner workings of the system, while hosted on another system, is called an Emulator.
          ( )TRUE ( )FALSE
5) Testing whether a system can withstand a Denial-Of-Service (DOS) attack is a form of Security Testing.( )TRUE ( )FALSE
6) The SQL Injection test technique is used when performing Static Testing.
          ( )TRUE ( )FALSE
7) Fuzz Testing involves randomly clicking around.
          ( )TRUE ( )FALSE
8) Cause-Effect Graphing is a Black Box Test technique.
          ( )TRUE ( )FALSE
9) Semantic Errors are mistakes in the software, which result in wrong system behavior.   ( )TRUE ( )FALSE
10) Test Reports should contain statement(s) about the reached level of quality.
          ( )TRUE ( )FALSE
11) Multiple requirements combined in one requirement will make the tests more efficient.   ( )TRUE ( )FALSE
12) A good requirement is always Relevant.
          ( )TRUE ( )FALSE
13) With Usability Testing a tester observes the behavior of the system when large amounts of data are transferred to/from the system.
          ( )TRUE ( )FALSE
14) A Stress Test is a Non-Functional Test.
          ( )TRUE ( )FALSE
15) Peer Reviews are not considered to be part of the Testing Process.
          ( )TRUE ( )FALSE

16) Static Code Analysis aims to prevent mistakes, not to find them.
          ( )TRUE ( )FALSE
17) Static Code Analysis is checking whether the code is programmed correctly against the coding guidelines. ( )TRUE ( )FALSE
18) Record & Playback tools are used for performing Static Testing on requirements.   ( )TRUE ( )FALSE
19) Test Scenarios are written as guides for testers to test system functions.
          ( )TRUE ( )FALSE
20) Unit Test Frameworks are tools which help the tester to perform Black Box tests.   ( )TRUE ( )FALSE

Part 3: Review the following requirements; check _all_ that apply. (21 Points)

1) The race game shall have different cars, tracks and gadgets.
   ( ) Not Specific   ( ) Not Relevant
   ( ) Not Measureable   ( ) Not Traceable
   ( ) Not Achievable
   ( ) Multiple requirements
   ( ) No problem
2) The Student Management application should be able to store all the grades.
   ( ) Not Specific   ( ) Not Relevant
   ( ) Not Measureable   ( ) Not Traceable
   ( ) Not Achievable
   ( ) Multiple requirements
   ( ) No problem
3) The application may only be installed on the server by the database administrator.
   ( ) Not Specific   ( ) Not Relevant
   ( ) Not Measureable   ( ) Not Traceable
   ( ) Not Achievable
   ( ) Multiple requirements
   ( ) No problem

Part 4: Define the number of necessary test runs, to test all possible paths. (9 Points)
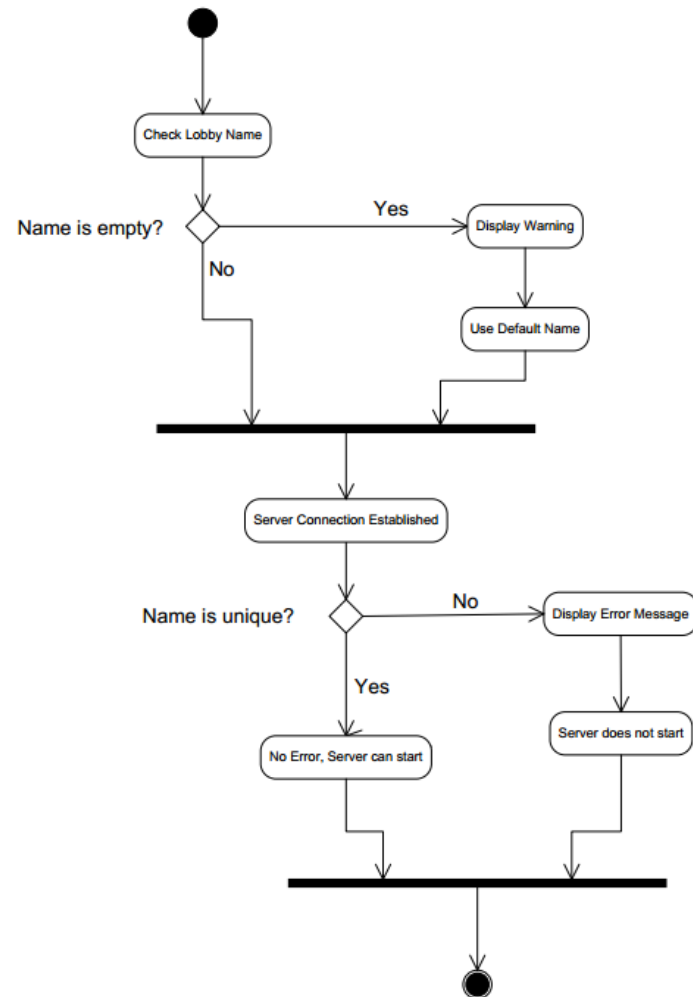
How many test *runs* are necessary to test all the possible paths in the software?   (   )

Part 5: Connect Test Techniques with the Types. (10 Points)

Types

Boundary Value Analysis

Unit Test Code

White Box

Control Structure Testing

Control Flow Testing

Equivalent Partitioning

Grey Box

Fuzz Testing

Comparison Testing

Loop Testing

Cause-Effect Graphing

Black Box

Monkey Testing