**ERIC WEBB**

**Nova Southeastern University**

**College of Engineering and Computing**

**Fall 2019 - Master Level Course**

**CISC 680 - Software Engineering - CRN – 21741**

**Term Code: Fall 2019 (202020) Course**

**Assignment 4: (Question Set 2) - See Syllabus for assignment % and Due**

**1. What are the attributes of a good software test?**

**Software tests should be able to communicate clearly their objectives and expected results. There should not be any argument or doubt on whether it is an effective test or what the results should be. The intent of a software test should be direct and easy to understand in such a way that a non-technical person can comprehend what the objective and tasks at hand are. A test should be significant that one can understand and grasp the importance of the test and its results. A test could be clear on the results, but one may not understand why these results are important. A good test should be isolated in the fact that it should not be dependent on other tests. If it depends on other tests then results could be skewed depending on the results of each individual test. Test should be automated so that excessive time is not spent creating and running a test. These automated test should also be quick to write and quick to run. These test should be unique in such a way that the results provide confidence that is not offered from other tests. A good software test typically only invokes a portion of code and does not use the code in its entirety. The test will usually deal with a certain portion of code like a single method or a particular piece of business logic. A good test should be order independent so it can be ran regardless of order of other tests, giving the tester a choice on which test to choose. It is no secret that a good test should be re-creatable and be able to be mimicked. It is said that a good test should be thought of in a manner similar to an end user. Thinking outside the box and asking questions are good attributes of a software test. Asking questions like why and why not something occurred or how something occurred can lead to better understanding of the applications functionality. Test results should be easily displayed and readable to the human eye.**

**2. Describe three control structure testing strategies.**

**3. Why is regression testing an important part of any integration testing**

**procedure?**

**4. What are the key differences between validation testing goals and**

**acceptance testing goals?**

**5. Describe the how test cases are derived from behavior models to**

**facilitate interclass testing?**

**6. List the components of a formal specification language and describe their**

**roles.**

**7. Describe the process of writing a formal specification for some system**

**function.**

**8. Technical testing metrics fall into two major categories. What are they?**

**9. Describe the five activities associated with the software measurement**

**process.**

**10.Describe the role of class-oriented metrics in assessing the quality of an**

**OO system.**

**11.Why is it important for software developers to make use of measurement**

**to guide their work?**

**12.Why is the "make-buy" decision and deciding whether to outsource**

**software development an important part of the software planning**

**process?**

**13.Describe the process of building a risk table.**

**14.What is forward engineering?**

**15.What characteristics need to be exhibited by organization to improve its**

**software process?**