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**Question Paper Code: 41242**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fourth Semester

Computer Science and Engineering

14UCS402 - SOFTWARE TESTING

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. A \_\_\_\_\_ Specialist is trained as an engineer has knowledge of test related principles, processes, measurements, standards, plans, tools and methods and learns how to apply them to the testing tasks to be performed.  
(a) Test (b) Coding  
(c) Design (d) Maintenance
2. CMM model refers to  
(a) Computer Maturity Model (b) Capability Maturity Model  
(c) Capability Multi Model (d) Computer Multi Model
3. In the \_\_\_\_\_ Box approach, tester has no knowledge of the inner structure i.e. how the software works.  
(a) White (b) Red (c) Black (d) None of these
4. \_\_\_\_\_ Box testing is also called glass box testing approach.  
(a) White (b) Black (c) Red (d) None of these
5. In \_\_\_\_\_ Test a single component is tested.  
(a) Integration (b) System (c) Regression (d) Unit

6. The auxiliary code developed to support testing of units and components is called  
(a) Unit                      (b) System                      (c) Integration                      (d) Test harness
7. \_\_\_\_\_ is a document that provides a framework or approach for achieving a set of goals.  
(a) Plan                      (b) Testing                      (c) Unit Testing                      (d) none of these
8. The Test incident report is also called as  
(a) Test report                      (b) Problem report  
(c) Document report                      (d) Validity report
9. At project post-mortems the \_\_\_\_\_ can be used to discuss successes and failures that occurred during testing.  
(a) SCM                      (b) Review  
(c) Test Summary Report                      (d) None of these
10. The \_\_\_\_\_ plans for inspection, sets the date, invites the participants, distributes the required documents, runs the inspection meeting, appoints a recorder to record results and monitors the follow up period after the review.  
(a) Requirement Analyst                      (b) Requirement Analyst  
(c) Developer                      (d) Inspection Leader

PART - B (5 x 2 = 10 Marks)

11. Differentiate verification and validation.
12. Write the advantages of equivalence class partitioning testing method.
13. List the reasons for failure of a unit in unit testing.
14. What information is contained in the test item transmittal report?
15. What does fault seeding ratio mean?

PART - C (5 x 16 = 80 Marks)

16. (a) Summarise any five software testing principles and testers role in a software development organization. (16)

Or

(b) Discuss the defect classes, the defect repository and test design with an defect example of the Coin problem. (16)

17. (a) Explain equivalence class partitioning and boundary value analysis. (16)

Or

(b) Write a quadratic equation program in any programming language and determine the outputs and draw the control flow graph and fits its Cyclomatic complexity. (16)

18. (a) Discuss designing integration tests and integration test planning. (16)

Or

(b) A tester wants to test the online retail application system as whole module or entire application, explain in detail what are the different types of testing to be tested in this application? (16)

19. (a) Summarize the test plan components. (16)

Or

(b) Give the skills needed for a test specialist and steps in forming a test group. (16)

20. (a) Explain software configuration management in detail. (16)

Or

(b) Write a detailed note on the components of review plans. (16)

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