VASAVI COLLEGE OF ENGINEERING *(Autonomous)*, HYDERABAD
M.C.A. II Year I-Semester (Main) Examinations, January-2016

Software Testing

Time: **3** hours   Max. Marks: **70**

Note: Answer ALL questions in Part-A and any FIVE questions from Part-B

Part-A *(10 × 2 = 20 Marks)*

1. What is software testing? Why we need software testing?

2. Mention which of the following testing technique is better:
    i) Functional   ii) Structural   iii) Both Functional and structural. Justify your answer.

3. Define DD-Path. What is DD-Path graph?

4. Compare Data flow and Path flow testing strategies.

5. What are the levels of testing?

6. What is static interaction?

7. What are the levels of object-oriented testing?

8. Write the implications of inheritance in object oriented software testing.

9. Define test driven development.

10. List top ten best practices for software testing excellence.

Part-B *(5 × 10 = 50 Marks)*
(All bits carry equal marks)

11. a) Explain robust boundary value test cases.
    b) What is a decision table? Discuss the role of decision table in a test case design.

12. a) Explain metrics used for method evaluation in structural testing.
    b) Explain the McCabe's basis path testing.

13. a) What is meant by integration testing? Discuss the goals of integration testing.
    b) What is system testing? Explain system testing with a help of an example and also design test cases.

14. a) Explain issues in testing object-Oriented software.
    b) Write about integration testing for object-oriented software in detail.

15. a) What are the appropriate models for model-based testing? Explain.
    b) Describe the guidelines for automated testing.

16. a) Explain equivalence class testing with an example.
    b) Explain test coverage metrics of structural testing.

17. Write short notes on any *two* of the following:
    a) Explain Petri net model for interactions testing.
    b) Explain the testing of object-oriented classes.
    c) What is the scope of automation? Explain in detail.

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