

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B.E / B.Tech. (FULL TIME) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2014
[COMMON TO COMPUTER SCIENCE ENGINEERING / INFORMATION TECHNOLOGY]
SEVENTH SEMESTER
IT471 / IT9401: SOFTWARE TESTING
R-2004 / 2008

Time: 3 Hours

Max. Marks: 100

ANSWER ALL QUESTIONS

PART A – (10 X 2 = 20 Marks)

1. What is a test bed?
2. List the information a test case contains.
3. What is a decision table?
4. State the importance of domain testing.
5. What is unit testing?
6. State the need for system testing.
7. What are milestones? What do managers use them to achieve?
8. Define a work breakdown structure.
9. What are test metrics?
10. State the advantages of using automated tools for software testing.

PART B – (5 X 16 = 80 Marks)

11. List and discuss the software testing principles. (16)
12. a. Explain boundary value analysis, equivalence class partitioning, and state based testing with an example for each. (16)

(OR)

- b. What is a cause-effect graph? Consider the following causes and effects for a simple ATM banking transaction system:

Causes (inputs)

- C1: Command is credit
- C2: Command is debit

- C3: Account number is valid
- C4: Transaction amount is valid

Effects

- E1: Print “invalid command”
- E2: Print “ invalid account number”
- E3: Print “debit amount not valid”
- E4: Debit account
- E5: Credit account

Model a cause-effect graph for the above. (16)

13. a. i. Explain alpha testing and beta testing with examples. (6)
- ii. What is regression testing? Why regression testing? Give example. (6)
- iii. What is acceptance testing? Why acceptance testing? Discuss. (4)

(OR)

b. State the major goals integration test for procedural code has and discuss with examples the different types of integration testing. (16)

14. a. What is a test plan? List and explain the test plan components. (16)

(OR)

b. Explain with diagrammatic illustration the role of played by the managers, developers/testers, and users/clients in testing planning and test policy development. (16)

15. a. What is software test automation? State and discuss the major objectives of software test automation. (8)

ii. Explain product metrics and process metrics with examples. (4)

iii. What is a quality metric? Give any four examples of quality metrics. (4)

(OR)

b. Consider a web-based application through which the students of constituent colleges of Anna University can pay their tuition fees and examination fees each semester. Discuss what types of testing must be carried out before the above application finds its actual use. (16)
