

R13

Code No: 126ER

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, December - 2017

SOFTWARE TESTING METHODOLOGIES

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 75

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

- 1.a) Define structural testing. [2]
- b) What are remedies for test bugs? Explain. [3]
- c) Give an example of forgiving Data Flow anomaly state graph. [2]
- d) Explain about path selection in transaction-flow testing. [3]
- e) What is domain testing? [2]
- f) Where do domains come from? [3]
- g) Write absorption rule. [2]
- h) What goes wrong with predicates? [3]
- i) What is the problem with pictorial graphs? [2]
- j) Explain state-transition table with example. [3]

PART - B

(50 Marks)

- 2.a) Explain link markers and link counters with example.
- b) Discuss about integration, interface and system bugs. [5+5]

OR

- 3.a) What are cases for single-loop? Explain with examples.
- b) Distinguish between testing and debugging. [5+5]

- 4.a) Why isn't static analysis enough? Why is testing required? Could not a vastly expanded language processor detect anomalies?
- b) Explain about sensitization in transaction-flow testing. [5+5]

OR

- 5.a) Describe application, tools and effectiveness of data-flow testing.
- b) Discuss about transaction-flow structure. [5+5]

- 6.a) Explain about testing two-dimensional domains.
- b) Discuss about closer compatibility and span compatibility. [5+5]

OR

- 7.a) What are ugly domains? How testers and programmers treat them.
- b) Explain about linearizing and coordinate transformations. [5+5]

- 8.a) Explain loop term step in a reduction procedure with example.
b) Discuss about decision tables and structure with example. [5+5]

OR

- 9.a) Describe lower path count arithmetic with example.
b) Write motivational overview of logic-based testing. [5+5]

- 10.a) What is equivalent state? Explain in detail.
b) Explain about node-reduction algorithm. [5+5]

OR

- 11.a) Give an example to illustrate how to convert a specification into a state graph and how contradictions can come about.
b) Discuss about win-runner testing tool. [5+5]

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