

Code No: 156CW

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, February/March - 2022

SOFTWARE TESTING METHODOLOGIES

(Common to CSE, IT)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

- 1.a) Discuss about implementation and application of path testing.
b) Describe instrumentation and sensitization in transaction-flow testing.

[8+7]

- 2.a) Explain about approximate number of paths with suitable example.
b) Discuss in detail about state bugs.

[8+7]

- 3.a) Describe software implementation of state graphs.
b) Explain about partition algorithm with example.

[8+7]

- 4.a) Briefly explain about consequences of bugs.
b) Discuss about three and four variable KV charts with examples.

[8+7]

- 5.a) What are dataflow anomalies? Explain about dataflow anomaly state graph.
b) Write and explain testability tips of state testing.

[8+7]

- 6.a) Distinguish the following: i) Modularity vs efficiency ii) Function vs structure
b) Describe motivational overview of graph matrices.

[8+7]

- 7.a) Explain basic concepts of path products and path expressions.
b) Discuss about node-reduction algorithm.

[7+8]

8. Explain the following:
a) Testing one-dimensional domains
b) Coding bugs
c) Identity elements.

[5+5+5]

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