

SOFTWARE TESTING METHODOLOGIES

(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Distinguish between error and bug.
 - (b) Explain different applications of path testing briefly.
 - (c) Discuss briefly about different transaction flow testing techniques.
 - (d) What are the different strategies of dataflow testing?
 - (e) What is the purpose of domain testing? Give its schematic representation.
 - (f) Explain domain dimensionality and domain closure.
 - (g) Write short notes on path products and path sums.
 - (h) Discuss briefly the role of decision table in a test case design.
 - (i) Differentiate between good and bad state graphs.
 - (j) How do you represent graphs in matrix formats? Discuss with examples.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 State and explain various dichotomies in software testing.
- OR**
- 3 Explain path testing with a suitable example. Discuss about applications of path testing.

UNIT – II

- 4 What is meant by transaction flow testing? Discuss its significance.
- OR**
- 5 What are data-flow anomalies? How data flow testing can explore them?

UNIT – III

- 6 Explain how one – dimensional domains are tested.
- OR**
- 7 Discuss in detail the domains and interface testing.

UNIT – IV

- 8 Explain Regular expressions and flow anomaly detection.
- OR**
- 9 What is the looping probability of a path expression? Explain with an example.

UNIT – V

- 10 Explain with an example how to convert specification into state-graph. Also discuss how contradictions can come out.
- OR**
- 11 What are Graph matrices and explain their applications.
