Code: IT7T2

IV B.Tech-I Semester–Regular Examinations–October 2017

SOFTWARE TESTING
(INFORMATION TECHNOLOGY)

Duration: 3 hours   Max. Marks: 70

PART – A
Answer *all* the questions.   All questions carry equal marks
$$11x\ 2 = 22\ M$$

1. a) Demonstrate nightmare list and when to stop testing in the consequences of bugs.
   b) Explain model for testing.
   c) Compare control flow graphs and flow charts.
   d) Explain components of data flow model.
   e) Define data flow testing.
   f) Explain domain and explain different domain bugs.
   g) Sketch KV-charts of 3 variables and 4 variables.
   h) Define decision table and explain about don't care and impossible terms.
   i) Explain the powers of a matrix.
   j) Explain connection matrix and explain about relations.
   k) Define graph matrix and explain out-degree and in-degree.

PART – B

Answer any **THREE** questions.   All questions carry equal
marks.   16 x 3 = 48 M

2. a) Explain the various software testing principles.   8 M

   b) Discuss that software testing will ensure the quality of a
      developed software.   8 M

3. a) Discuss various flow graph elements with their notations.
                                                8 M

   b) Define path sensitization and write the heuristic procedure
      used in path sensitization.   8 M

4. a) Define path. What do you mean by complete, feasible and
      infeasible path?   8 M

   b) Explain that domain testing can be used in both functional
      and structural testing.   8 M

5. a) Demonstrate decision table and how is a decision table
      useful in testing. Explain with the help of an example.
                                                8 M

   b) Demonstrate an anomaly can be detected. Explain different
      types of data flow anomalies and data flow anomaly state
      graphs.   8 M

6. a) Discuss a node reduction algorithm in terms of matrix operations.　　　　8 M

　　b) Illustrate about matrix powers and products.　　　8 M