

M.Sc.- II (Computer Science) (CBCS Pattern) Semester-III  
**PSCST09 - Paper-I - Software Testing Tools and Methodology**

P. Pages : 2

Time : Three Hours



**GUG/S/25/11232**

Max. Marks : 80

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- Notes :
1. All the questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagrams wherever necessary.
  3. Avoid Vague answers and write specific answer related to question only.

**Either :**

1. a) Explain in brief waterfall and spiral model. 8
- b) Explain various test levels in detail. 8

**OR**

- c) Explain Agile methodology and its impact on testing in detail. 8
- d) State general principles of testing. Explain test metrics in details. 8

**Either :**

2. a) Write a note on – 8
  - i) Path Predicates.
  - ii) Achievable paths.
- b) Explain transaction flow testing in detail. 8

**OR**

- c) Compare the transaction testing strategies with the data-flow testing strategies. 8
- d) What is path sensitization? Explain heuristic procedure used for it. 8

**Either :**

3. a) Explain the term Boundary value Analysis with suitable example. 8
- b) What is static testing? Explain the concept of determining metrics. 8

**OR**

- c) Explain about statement coverage and Branch coverage in detail. 8
- d) Demonstrate Black Box testing & explain advanced black box testing techniques. 8

**Either :**

4. a) Define Test tool. Explain various types of test tools in detail. 8

- b) Describe test specification and tools for test management in detail. 8

**OR**

- c) Discuss the object-oriented testing concept in detail. 8

- d) Explain functional testing in detail. 8

**5.** Solve all the questions.

- a) Why Software Testing is necessary? Explain. 4

- b) What are the applications of Data flow testing. 4

- c) Write short note on Gray Box testing. 4

- d) Write a note on company ethics. 4

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