

# CBCS SCHEME

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15CS552

## Fifth Semester B.E. Degree Examination, Dec.2018/Jan.2019 Introduction to Software Testing

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Explain about software quality with respect to quality attributes and reliability. (08 Marks)  
b. Explain the classification of test metrics used in software testing. (08 Marks)

OR

- 2 a. Explain about the Error and Fault Taxonomies in a perspective testing with respect to types and instances. (08 Marks)  
b. Explain the levels of abstraction and testing in the waterfall model in a levels of testing. (08 Marks)

### Module-2

- 3 a. Discuss the triangle problem with respect to problem statement, traditional implementation and structured implementation. (08 Marks)  
b. Explain the difference between Robustness Testing and Worst Case Testing. (08 Marks)

OR

- 4 a. Explain the following equivalence class testing with respect to:  
i) Weak Normal ii) Strong Normal  
iii) Weak Robust iv) Strong Robust (08 Marks)  
b. Explain the Decision Table – Based Testing with any one suitable examples. (08 Marks)

### Module-3

- 5 a. Explain the Fault-Based Testing Terminologies with respect to assumptions. (08 Marks)  
b. Difference between statement testing and condition testing with respect to structural testing. (08 Marks)

OR

- 6 a. Explain the following with respect to path testing:  
i) DD – Paths  
ii) McCabe's Basis Path Method. (08 Marks)  
b. Explain about slice based testing with suitable examples with respect to data flow testing. (08 Marks)

### Module-4

- 7 a. Explain the following with respect to Test Execution:  
i) Scaffolding  
ii) Test Oracles (08 Marks)  
b. Explain the six basic principles that characterize various approaches and techniques for analysis and testing. (08 Marks)

OR

- 8 a. Explain the difference between Risk Planning and the Quality Team with respect to planning and monitoring the process. (08 Marks)
- b. Explain about the quality and Process with respect to planning and monitoring the process. (08 Marks)

Module-5

- 9 a. Explain some of the possible manifestations of incomplete specifications and faulty implementation with reference to Integration and Component based Software Testing. (08 Marks)
- b. Explain the following in brief notes on:
- i) System Testing
  - ii) Acceptance Testing
  - iii) Regression Testing
- (08 Marks)

OR

- 10 a. Draw the context diagram of the simple Automatic Teller Machine (SATM) system with SATM Terminal and 15 Screens for the SATM system. (08 Marks)
- b. Explain the following Decomposition Based Integration Testing with respect to:
- i) Top-Down Integration
  - ii) Bottom-up Integration
  - iii) Sandwich Integration
- (08 Marks)

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