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10IS65

**Sixth Semester B.E. Degree Examination, Dec.2016/Jan.2017**  
**Software Testing**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting at least TWO questions from each part.**

**PART – A**

- 1 a. What are Test cases? Explain approaches used to identify test cases. (06 Marks)  
b. Explain:
  - i) Currency converter (08 Marks)
  - ii) Saturn wind shield wiper controller. (06 Marks)
- c. Briefly explain testing using Venn Diagram. (06 Marks)
- 2 a. Explain Decision table testing and generate test cases for triangle problem using decision table. (08 Marks)  
b. Develops test cases for commission problem using Boundary value testing. (06 Marks)  
c. Give the Guidelines and observations for equivalence class testing. (06 Marks)
- 3 a. Explain in detail Basis path testing with respect to triangle problem. (10 Marks)  
b. Define def/use pair and identify def/use paths for commission problem. (10 Marks)
- 4 a. Explain why it is essential to separate integration and system testing. (08 Marks)  
b. Define MM path graph. Draw MM paths in SATM system. (12 Marks)

**PART – B**

- 5 a. Briefly explain process of generating system level SATM test Threads. (10 Marks)  
b. Explain four basic types of interactions. (10 Marks)
- 6 a. Explain validation and verification. (06 Marks)  
b. Explain : i) Visibility ii) Feedback iii) Dependability  
iv) MTBF v) Availability. (10 Marks)  
c. Write a short note on Software quality goals. (04 Marks)
- 7 a. What is fault based testing? What are assumptions in fault base testing? (06 Marks)  
b. Explain : i) scaffolding ii) Test oracles  
iii) Capture and Replay iv) Test case specification. (10 Marks)  
c. Write a note on mock. (04 Marks)
- 8 a. Briefly explain test and Analysis strategies. (10 Marks)  
b. Explain root cause analysis technique for improving the process. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any marking of identification, appeal to evaluator and/or equations written eg. 42-8 = 50 will be treated as malpractice