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10CS842

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

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting atleast TWO questions from each part.***

PART – A

1 a. Explain life cycle model of software testing. **(06 Marks)**
b. Explain the IEEE error and fault taxonomy. **(08 Marks)**
c. With neat diagram, explain the currency converter system. **(06 Marks)**

2 a. Explain : i) boundary value testing ii) random testing iii) decision table based testing. **(10 Marks)**
b. What is a test case? Explain the equivalence class test cases for the triangle problem. **(10 Marks)**

3 a. Discuss test coverage metrics and basis path testing with example. **(10 Marks)**
b. With suitable example, explain use testing and slice based testing. **(10 Marks)**

4 a. What is water fall spin-off? Explain life cycle based model with build sequence. **(10 Marks)**
b. Briefly explain about :
i) Top-down integration
ii) Bottom-up integration
iii) Call graph–based integration. **(10 Marks)**

PART – B

5 a. Justify strongly the significance of thread based system testing with SATM as example. **(10 Marks)**
b. Distinguish between progression and regression testing. **(04 Marks)**
c. Explain interaction testing with client/server as a classical example. **(06 Marks)**

6 a. What are the work products generated by verification and validation process? Explain with suitable diagram. **(10 Marks)**
b. Explain the importance of dependability properties in process frame work with neat sketch. **(10 Marks)**

7 a. Explain below terminology in association with fault based testing :
i) original program ii) program location iii) alternative expression iv) distinct behavior of an alternate program. **(10 Marks)**
b. Explain the significance of capture and replay mechanism in software automation testing. **(10 Marks)**

8 Write short notes on the following :
a. System testing
b. Test case template
c. Clean room process model by IBM
d. Software reliability approach by AT & T. **(20 Marks)**

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