USN | | | | | | | | | | | 06CS842

Eighth Semester B.E. Degree Examination, June/July 2014
Software Testing

Time: 3 hrs.   Max. Marks:100

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

PART – A

1 a. Explain errors faults and failures in the process of programming and testing, with neat flow diagram. **(08 Marks)**
  b. Write one operational profile for sort program. Write a sample test plan and test cases for a sort program. **(12 Marks)**

2 a. Explain the static testing process in detail, with a neat diagram. **(10 Marks)**
  b. Explain the following :
     i) Elements of model checking
     ii) Test process models (any two). **(10 Marks)**

3 a. Explain in detail, with neat diagram any three steps in the generation of tests using the category – partition method. **(10 Marks)**
  b. Discuss in detail, boundary value analysis, with an example. **(10 Marks)**

4 a. Write the generic procedure for generation of tests, using cause-effect graphing. **(04 Marks)**
  b. Explain briefly the notations used in cause-effect graphing. **(08 Marks)**
  c. Explain the fault-model for predicate testing. **(08 Marks)**

PART – B

5 a. Explain the followings :
     i) Procedural call testing
     ii) Path testing. **(10 Marks)**
  b. Explain the statement testing and branch testing of structural testing along with the corresponding coverage criteria. **(10 Marks)**

6 a. Explain data dependence and control dependence graphs. **(10 Marks)**
  b. Discuss the inter-procedural analysis. **(10 Marks)**

7 a. Explain test adequacy criteria and comparing criteria. **(10 Marks)**
  b. Write a short notes on :
     i) Test oracles
     ii) Self checks as oracles. **(10 Marks)**

8 a. Describe the dependability properties, in detail. **(10 Marks)**
  b. Write a short notes on :
     i) Duality process
     ii) Acceptance testing. **(10 Marks)**

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