

**FACULTY OF INFORMATICS****B.E. 3/4 (IT) II – Semester (New) (Main) Examination, May 2013****Subject : Software Testing (Elective – I)****Time : 3 hours****Max. Marks : 75****Note : Answer all questions from Part-A. Answer any FIVE questions from Part-B.****PART – A (25 Marks)**

1. What is testing? What are the objectives of testing? 2
2. Define : a) Test plan      b) test script      c) test suite 3
3. What are the different types of testing? Differentiate between them. 3
4. What is debugging? What is the difference between an error and a fault? 3
5. What is Integration testing? What is the importance of integration testing? 2
6. What is performance testing? When is it conducted? 2
7. What type of applications can be tested by Jmeter? List some important features of Jmeter. 3
8. What are the source code testing utilities in UNIX? 2
9. What are the different types of testing metrics suitable for controlling the testing process? 2
10. Differentiate between positive and negative testing for black box testing. 3

**PART – B (50 Marks)**

- 11.a) What are the principles of software testing? What are the guidelines for designing a good test plan? 5
- b) Differentiate between verification and validation in software testing. 5
12. What is White Box testing? Explain static testing? Explain unit / code functional testing strategy for structural testing. 10
- 13.a) What is system testing? Why it is done? 3
- b) Explain the unit testing of a set of classes in object oriented applications. 7
14. Explain the architecture, features and the use of silk test. 10
- 15.a) What is black box testing? What are the different types of black box testing? 3
- b) Write short notes on efficient test suite management. 7
16. Explain the need and importance of progress metrics in software testing. Explain some important progress metrics used in software industry for testing the software products. 10
17. Explain : 5+5
  - a) Uses of load runner, win runner
  - b) State based or graph based testing strategy