EIT062

B. Tech.

(SEM. VI) THEORY EXAMINATION 2011-12

SOFTWARE TESTING

Total Marks : 100

Time : 3 Hours

1. Attempt any **two** parts of the following :—   **(10×2=20)**

   (a) What is Software testing ? Explain why testing can only detect the presence of errors, not their absence.

   (b) Quality and reliability are related concepts but are different in number of ways. Discuss.

   (c) Discuss in brief :—

      (i) Debugging approaches.

      (ii) Verification and validation testing.

2. Attempt any **two** parts of the following :—   **(10×2=20)**

   (a) Compare equivalence partitioning and boundary value analysis testing methods. Discuss in detail.

   (b) How can you compute the cyclomatic complexity of a program ? How is complexity useful in program testing ? Discuss.

   (c) Explain the following :—

      (i) Cause Effect Graphing Technique.

      (ii) Difference between white box and black box testing.

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3. Attempt any **two** parts of the following :— (10×2=20)

   (a) Distinguish between Alpha, Beta and acceptance testing with suitable examples.

   (b) What is integration testing ? Explain and also discuss the importance of integration testing.

   (c) Discuss the following :—

      (i) Unit testing.

      (ii) Stress testing.

4. Attempt any **two** parts of the following :— (10×2=20)

   (a) What is regression testing ? Why regression test is applied in each phase of software development ? Discuss.

   (b) Discuss the test selection using execution trace in context of regression testing.

   (c) Write a short note on ad hoc testing with examples.

5. Write notes on any **two** :— (10×2=20)

   (a) Grey-box testing with respect to object oriented systems.

   (b) Software test automation.

   (c) Test Planning & Management.