(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 113602   **Roll No.** | | | | | | | | | | |

B.Tech.

(SEM. VI) THEORY EXAMINATION 2013-14

SOFTWARE TESTING

Time : 3 Hours   *Total Marks : 100*

Note :– Attempt **all** questions, each question carries equal marks.

1. Attempt any **four** parts of the following :   (5×4=20)

   (a) What is Software Testing ? Also explain its concept in reference of tester and customers.

   (b) What are the various important principles of software testing ?

   (c) Differentiate between faults, errors and failures.

   (d) What is the relation between software quality and reliability ?

   (e) Explain Software Defect Tracking.

   (f) What is the difference between :

        (i)   Debugging and Testing

        (ii)   Verification and Validation ?

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

   (a) What is White Box Testing ? Explain its methods. Differentiate between black box and white box testing.

   (b) Compare the equivalence partitioning and boundary value analysis testing methods. Discuss in detail with example.

   (c) (i) Explain slate/graph based testing.

   (ii) Explain Model Based Testing.

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

   (a) What is integration testing ? Explain different approaches used in integration testing.

   (b) (i) Define Defect Bash. Write its advantages and disadvantages.

   (ii) Explain design/architecture verification in software testing.

   (c) Discuss the scenario testing. Consider a typical university academic information system. Identify the typical agents, actors and the expected system behaviours for the various types of use-case in the system.

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) (i) Differentiate between Smoke and Sanity testing.

    (ii) Define test minimization and test prioritization.

(c) Discuss the following :

    (i) Ad hoc Testing

    (ii) Pair Testing.

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

(a) Illustrate the generic requirements for test tool framework in detail.

(b) (i) What is Test Planning ? Explain test plan structure with diagram.

    (ii) What do you mean by Test Management ? Explain its various aspects.

(c) Write short notes on the following :

    (i) Test in object oriented system

    (ii) Software test automation.