

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

PAPER ID : 113602

Roll No.

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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 state/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.