

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH 2019

(CUCBCSS)

BCA

BCA 6B 18 (E3)—SOFTWARE TESTING AND QUALITY ASSURANCE

Time : Three Hours

Maximum : 80 Marks

Part A*Answer all questions.**Each question carries 1 mark.*

1. A system test should not be performed by _____.
2. Acceptance testing must occur at the _____ of the development process.
3. Black-box testing is a _____.
4. Which testing is the re-execution of some subset of tests that have already been conducted.
5. Testing based on the functionality of program is known as _____.
6. Regression testing is helpful in _____.
 - (a) Detecting bugs.
 - (b) Detecting undesirable side effects by changing the operating environment.
 - (c) Integration testing.
 - (d) All of the above.
7. Before we validate the entire software, _____ must be validated.
 - (a) Modules.
 - (b) System.
 - (c) Unit tests.
 - (d) All of the above.
8. Testing is the process of _____ errors.
 - (a) Hiding.
 - (b) Finding.
 - (c) Removing.
 - (d) None.

9. One fault may lead to :
- (a) One failure.
 - (b) No failure.
 - (c) Many failures.
 - (d) All of the above.
10. Which of the following is true ?
- (a) Testing is performed after coding.
 - (b) Testing is performed after the integration of modules.
 - (c) Testing starts as soon as the SRS prepared.
 - (d) None of the above.

(10 × 1 = 10 marks)

Part B

Answer all questions.

Each question carries 2 marks.

- 11. What is the need of validation ?
- 12. Define regression testing problem.
- 13. What is the purpose of integration testing ?
- 14. Explain factors of performance testing.
- 15. Explain how to do acceptance testing ?

(5 × 2 = 10 marks)

Part C

Answer any five questions.

Each question carries 4 marks.

- 16. Evaluate the benefits of verification in a project.
- 17. What is the need for minimizing the test cases in a project ?
- 18. What is the difference between alpha and beta testing ?
- 19. Explain different types of functional testing.
- 20. Explain the categories of test metrics.
- 21. Explain functional versus non-functional testing.
- 22. Define process for performance testing.

23. Write short notes on :

- (a) Project Metrics.
- (b) Productivity Metrics.
- (c) Progress Metrics.
- (d) Release Metrics.

(5 × 4 = 20 marks)

Part D

Answer any five questions.

Each question carries 8 marks.

- 24. What is the difference between function testing and system testing ?
- 25. Discuss Black-box testing.
- 26. Explain regression testing and types of regression testing.
- 27. What is the difference between ?
 - (a) Verification and Validation.
 - (b) Static and Dynamic testing.
- 28. Explain how to do an acceptance testing, what is its use ?
- 29. Explain test metrics and measurements.
- 30. Explain life cycle models and its different phases.
- 31. What is top-down integration ? Explain steps for top-down integration.

(5 × 8 = 40 marks)