

**C 60103**

(Pages : 3)

Name.....

Reg. No.....

**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.

**Turn over**

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)