

**Very short questions:**

- Q1 Define Software testing
- Q2 What is Software Configuration Management
- Q3 Define debugging
- Q3 Differentiate between Black box and White box testing
- Q4 Software metric
- Q5 What is the Version control
- Q6 Advantages and disadvantages of manual testings
- Q7 Describe various types of testing in detail
- Q8 Comparison between Automation testing and Manual testing
- Q9 What is Continuous Integration
- Q10 Describe the different types of *environments*
- Q11 Why should QA have their own QA Environment?
- Q12 Software verification and validation
- Q13 Seven key principles of software testing

**Practical exam - Questions:**

**1. Which of the following statements BEST describes one of the seven key principles of software testing?**

- a) Automated tests are better than manual tests for avoiding the Exhaustive Testing.
- b) Exhaustive testing is, with sufficient effort and tool support, feasible for all software.
- c) It is normally impossible to test all input / output combinations for a software system.
- d) The purpose of testing is to demonstrate the absence of defects.

**2 Which of the following statements is the MOST valid goal for a test team?**

- a) Determine whether enough component testing was executed.
- b) Cause as many failures as possible so that faults can be identified and corrected.
- c) Prove that all faults are identified.
- d) Prove that any remaining faults will not cause any failures.

**3. Which of the following, if observed in reviews and tests, would lead to problems (or conflict) within teams?**

- a) Testers and reviewers are not curious enough to find defects.
- b) Testers and reviewers are not qualified enough to find failures and faults.
- c) Testers and reviewers communicate defects as criticism against persons and not against the software product.
- d) Testers and reviewers expect that defects in the software product have already been found and fixed by the developers.

**4 What is important to do when working with software development models?**

- a) To adapt the models to the context of project and product characteristics.
- b) To choose the waterfall model because it is the first and best proven model.
- c) To start with the V-model and then move to either iterative or incremental models.
- d) To only change the organization to fit the model and not vice versa.

**5 Which of the following statements are TRUE?**

- A. Regression testing and acceptance testing are the same.
  - B. Regression tests show if all defects have been resolved.
  - C. Regression tests are typically well-suited for test automation.
  - D. Regression tests are performed to find out if code changes have introduced or uncovered defects.
  - E. Regression tests should be performed in integration testing.
- a) A, C and D and E are true; B is false.
  - b) A, C and E are true; B and D are false.
  - c) C and D are true; A, B and E are false.
  - d) B and E are true; A, C and D are false.

**6. Which TWO of the review types below are the BEST fitted (most adequate) options to choose for reviewing safety critical components in a software project?**

*Select 2 options.*

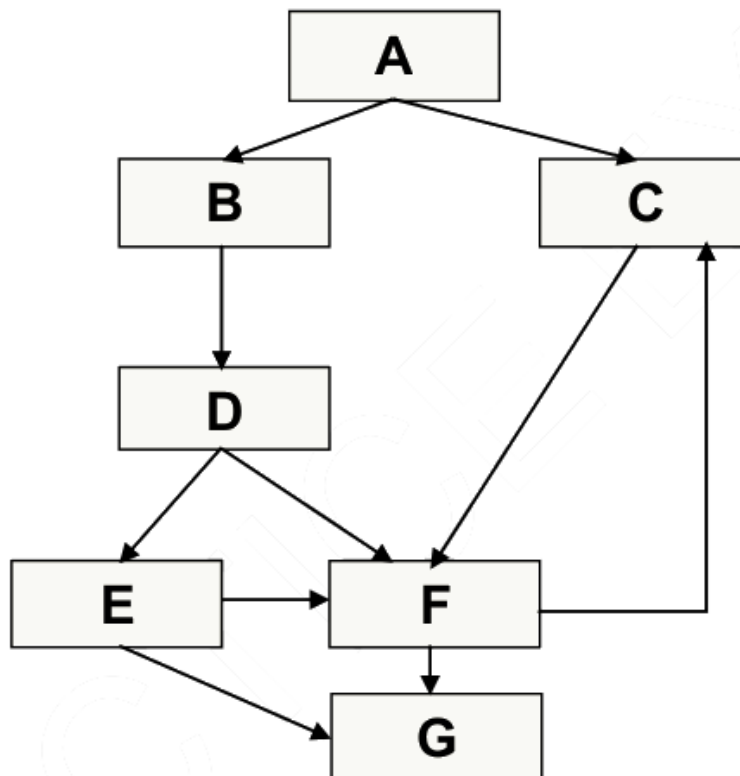
- a) Informal review.
- b) Management review.
- c) Inspection.
- d) Walkthrough.
- e) Technical Review.

7. One of the test goals for the project is to have 100% decision coverage. The following three tests have been executed for the control flow graph shown below.

Test A covers path: A, B, D, E, G.

Test B covers path: A, B, D, E, F, G.

Test C covers path: A, C, F, C, F, C, F, G.



Which of the following statements related to the decision coverage goal is correct?

- a) Decision D has not been tested completely.
- b) 100% decision coverage has been achieved.
- c) Decision E has not been tested completely.
- d) Decision F has not been tested completely.