

**TILAK MAHARASHTRA VIDYAPEETH, PUNE**  
**BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/**  
**SPECIALIZATION IN CYBER SECURITY (CS)**  
**EXAMINATION : MAY/JUNE - 2024**  
**SEMESTER - III**

**Sub: Software Testing & Quality Assurance/ Software Quality Testing**  
**(BCA-543/BCA –345-18/345-20/BCA-CS-345-20)**

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**Date :03/06/2024**

**Total Marks : 60**

**Time: 2.00 pm To 4.30 pm**

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**Instructions:**

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labeled diagrams wherever necessary.

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**Q.1. Fill in the blanks. (5)**

1. SDLC stands for .....
  - a) Software development life cycle
  - b) Software design life cycle
  - c) System development life cycle
  - d) System design life cycle
2. In..... testing level, the main focus is on customer usage.
  - a) Validation Testing
  - b) Both Alpha and Beta Testing
  - c) Unit Testing
  - d) Verification
3. ----- is known as a variance from software product specifications.
  - a) Defects
  - b) Report
  - c) Requirement
  - d) Review
4. .... testing is the part of non-functional testing.
  - a) Unit Testing
  - b) Integration Testing
  - c) System Testing
  - d) Performance Testing
5. .... led by trained moderator.
  - a) Walkthrough
  - b) Inspection
  - c) informal review
  - d) Technical reviews

**Q.2. State True/False. (5)**

1. In walkthroughs scenarios, dry runs, peer group are used.
2. Product Risk affects the quality or performance of the software.
3. Boundary value analysis can only be used during white-box testing.
4. Black-box testing technique is also called as structure-based technique.
5. SQA stands for Software Quality Analysis.

**Q.3. Answer the following. (Solve any 5) (10)**

1. What is Boundary value analysis? Give example.
2. Define Integration testing.
3. What is testers workbench? List testing workbench components.
4. Define the term Cyclomatic complexity.
5. Define Unit testing.
6. Define the term Verification. List different terms involved in Verification.

**Q. 4. Answer the following in detail. (Solve any 6) (30)**

1. Describe waterfall model with suitable diagram.
2. Define Security testing. Explain different security measures.
3. Describe capability maturity model.
4. Enlist the differences between Manual Testing and Automation Testing.
5. Explain the term peer Review.
6. What is Test case? Write a test case for login page.
7. Describe Testing lifecycle.

**Q. 5. Answer the following in detail. (Solve any 1) (10)**

1. Define performance testing. Explain types of performance testing.
  2. Explain in detail testing of web-applications.
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