

**TILAK MAHARASHTRA VIDYAPEETH, PUNE**  
**BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)**  
**SPECIALIZATION IN CYBER SECURITY (CS)**  
**EXAMINATION : DECEMBER - 2023**  
**SEMESTER – III/V**

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

**Date : 23/12/2023**

**Total Marks : 60**

**Time: 10.00 am To 12.30 pm**

**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.

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

1. \_\_\_\_\_ testing is related to Non-functional testing?
  - a) Unit Testing
  - b) Black-box Testing
  - c) Performance Testing
  - d) None of the above
2. \_\_\_\_\_ Methodology is used to perform Maintenance testing?
  - a) Breadth test and depth test
  - b) Sanity testing
  - c) Confirmation testing
  - d) Retesting
3. In CMM, letter C stands for \_\_\_\_\_.
  - a) Capability
  - b) Cost
  - c) Capacity
  - d) Contact
4. Acceptance Testing is also known as \_\_\_\_\_.
  - a) Alpha Testing
  - b) Beta Testing
  - c) Grey box Testing
  - d) White box Testing
5. User acceptance is done at \_\_\_\_\_ stage.
  - a) Manual Stage
  - b) Automatic Stage
  - c) Both Manual & Automatic
  - d) None of the above

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

1. Quality control is pillar for Software Quality Assurance.
2. Post Implementation phase evaluates testing processes.
3. The alpha test is conducted at user's site.
4. Smoke testing is also known as confidence testing.
5. Black box testing is only functional testing.

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

1. What is Unit Testing?
2. What is alpha and beta testing?
3. What is Buddy Check?
4. Define LOC and KLOC.
5. Define QA and QC.
6. What is a defect?

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

1. Explain software quality metrics.
2. Difference between black box and white box testing.
3. Describe capability maturity model.
4. Describe waterfall model with suitable diagram.
5. Describe quality factors in order to gain good software quality.
6. Write a note on Six Sigma.
7. Explain tester's workbench concept with diagram.

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

1. Describe any 10 quality factors under software quality assurance.
  2. Describe V-V model using suitable diagram
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