



**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)  
Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment Test - II April 2025**

**Semester III**

**Class : II UG**

**Major/Branch : B.Sc. Computer Science**

**Time : 2 Hours**  
**Max. Marks: 60**

**23BCSC08 Software Engineering**

**Course outcomes:**

1. Acquire strong fundamental knowledge in software engineering.
2. Ability to design the software projects in objects oriented models.
3. Effectively demonstrate competence in Problem-Solving Approaches.
4. Adapt to new emerging technologies and methodologies.
5. Assuring software quality standards based on various testing strategies.

**Part A**

**6x1 = 6**

**Choose the Correct Answer**

1. Which of the following is the primary goal of software reliability? CO4\_K2  
A) To ensure that the software performs optimally at all times  
B) To guarantee that the software is free of defects  
C) To measure the probability of software failure during a specified period of operation  
D) To ensure software security is maintained
2. Which of the following is a commonly used metric for measuring software reliability? CO4\_K3  
A) Lines of code (LOC)  
B) Mean Time Between Failures (MTBF)  
C) Cyclomatic complexity  
D) Function points
3. Which of the following is a primary benefit of software reuse? CO4\_K2  
A) Increased software development cost  
B) Reduced time to market and improved productivity  
C) Increased complexity of the software system  
D) Higher risk of defects in reused components
4. Which of the following is the primary purpose of software unit testing? CO5\_K2  
A) To ensure that the software meets customer requirements  
B) To test the integration of different modules  
C) To verify that individual components or functions work as intended  
D) To test the overall performance of the software

5. What is the primary objective of software regression testing? CO5\_K3  
 A) To verify that new code changes have not introduced new defects  
 B) To evaluate the performance of the software under load  
 C) To check the compatibility of software with various operating systems  
 D) To ensure that the software meets the initial customer requirements
6. What is the primary purpose of software smoke testing? CO5\_K2  
 A) To check the performance of the software under high load  
 B) To verify if the critical functionalities of the software are working after a build  
 C) To test the integration of multiple software modules  
 D) To perform detailed testing of every feature in the software

**Part B**

**3x6 = 18**

**Answer all the questions**

**Each answer should not exceed 400 words or two pages**

- 7.a) Write notes on Redefining the Software Engineering Process. CO3\_K3  
 (Or)  
 b) Explain Software Reuse. CO4\_K2
- 8.a) Discuss the concept of Fault Tolerance. CO4\_K2  
 (Or)  
 b) Explain Fault Avoidance. CO5\_K5
9. a) Explain Top Down Integration and Bottom Up Integration Testing. CO5\_K3  
 (Or)  
 b) Discuss the Unit Testing and its Considerations. CO5\_K4

**Part C**

**3x12 = 36**

**Answer all the questions**

**Each answer should not exceed 800 words or four pages**

10. a) Discuss on the First Assumption and Second Assumption of Software Engineering. CO3\_K3  
 (Or)  
 b) Explain the Third Assumption and Fourth Assumption of SE. CO3\_K4
11. a) Elaborate on Software Reliability Metrics and Programming for Reliability. CO4\_K4  
 (Or)  
 b) Explain the Software Testing Strategies. CO4\_K5
12. a) Write Short notes on White Box Testing. CO5\_K4  
 (Or)  
 b) Discuss on Black Box Testing. CO5\_K5

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**Staff in-charge**

Dr. G. Sudhamathy, Dr. M. Thilagu

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