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 II – October 2025
V SEMESTER

Class : III UG (2022 Repeater)
Major: Computer Science

Time : 2 Hours
Max Marks: 60

21BCSC23 Software Engineering

Course Outcomes:
CO1: Acquire strong fundamental knowledge in software engineering.
CO2: Ability to apply software engineering principles, techniques, tools and practices
CO3: Effectively demonstrate competence in communication, planning, analysis, design,construction, testing and deployment
CO4: Adapt to new emerging technologies and methodologies
CO5: Cope up with software quality standards

Part – A **6x 1=6**
Choose the correct answer

1. Which of the following is NOT a phase of Requirement Engineering? CO3 K1
   a. Requirement elicitation b. Requirement analysis
   c. Requirement validation d. Requirement coding
2. Why is it important to recognize multiple viewpoints during the requirement engineering process? CO3 K2
   a. To avoid system failure due to misunderstanding
   b. To allow different technical approaches
   c. To ensure the software system is optimized for speed
   d. To increase project cost
3. In the context of data modeling, what is a "relationship" in an ER diagram? CO4 K2
   a. A link between tables in a relational database
   b. An attribute of an entity
   c. A connection or association between two or more entities
   d. A data validation rule
4. Which of the following software design principles aiming at coupling and cohesion? CO4 K3
   a. Information hiding b. Abstraction
   c. Functional independence d. Refinement
5. Name the activity that ensures software correctly implements a specific function. CO5 K3
   a. Verification b. Testing c. Validation d. Implementation
6. Select the best time when regression testing should be done. CO5 K3
   a. As frequently as possible b. When the environment has been modified
   c. After the software has been modified d. both b and c are correct

Part- B **3x6=18**
Answer ALL Questions
Each answer should not exceed 400 words or two pages

7. a. Summarize the key points in Requirement analysis. CO4 K2
   (or)
7. b. Briefly explain the Data Modeling Concepts. CO4 K2

8. a. List out the software design principles. CO4 K1
   (or)
8. b. Explain in brief on various approaches in integration testing. CO5 K1

9. a. Write a note on the technique used in Basis Path Testing. CO5 K1
   (or)
9. b. What are alpha and beta testing techniques? Explain in brief. CO5 K1

Part-C **3x12=36**

Answer ALL questions

Each answer should not exceed 800 words or four pages

10. a. Discuss about Initiating the Requirements Engineering process.	CO3 K2
(or)	
10. b. Describe Analysis Modeling and its Approaches in detail.	CO4 K2
11. a. Discuss in brief about a strategic approach to Software Testing.	CO4 K1
(or)	
11. b. Elaborate the concepts of software design and its applications.	CO4 K2
12. a. Explain the testing strategies applied for a conventional software.	CO5 K2
(or)	
12. b. Explain in detail about white box and black box testing techniques.	CO5 K1

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No.of Copies: 3 (Repeater) **Staff-In-Charge: Dr.M.Thilagu**

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