Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD (now MoE)
Re-accredited with 'A++' Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2025
Semester-II

Class : I PG **Time : 2 Hours**
Major :Computer Applications **Max. Marks: 60**

23MCAC09 -Software Engineering

Course Outcomes:

CO1: Apply the software engineering concepts to the processes of software development.
CO2: Analyze the problem domain and enable the process of SRS, adoption of a suitable software process model
CO3: Design and analysis of modules using DFD, and UML diagrams.
CO4: Compare the product and process performance using various metrics.
CO5: Evaluate the system with various testing techniques and strategies.

Part A **6 x 1 =6**

Choose the Correct Answer

1.What is the purpose of the Capability Maturity Model Integration (CMMI)? CO1K1

a)To define coding standards b) To measure software performance

c)To replace agile methodologiesd) To assess and improve organizational process maturity

2 .What does the Personal Software Process (PSP) focus on? CO1K1

a)Reducing individual developer errors b)Enhancing team collaboration

c)Managing large software repositories d) Implementing agile methodologies

3 .Which of the following is a characteristic of the Waterfall Model? CO2K2

a) Iterative and flexibleb) Sequential and rigidc) Based on prototypes d) Rapid feedback cycles

4 .Which Agile model emphasizes iterative development with short, time-boxed increments? CO2K3

a) Waterfall Modelb) Crystalc) Scrumd) Feature-Driven Development (FDD)

5. What is the primary role of Software Configuration Management (SCM)? CO3K1

a) Developing software designb) Managing changes to software artifacts

c) Testing the softwared)Debugging and fixing errors

6. Which of the following is a key activity in Product Engineering? CO3K3

a)Process modelingb) System modeling
c) Debugging d)Risk analysis

Part B **3 x 6 = 18**

Answer ALL three questions

The answer should not exceed 400 words or one page

7. a. Explain the Capability Maturity Model Integration (CMMI) and its levels. CO1K2

(or)

7. b.Describe the Personal Software Process (PSP) and the benefits in software development.CO1K3

8. a. Compare the Waterfall Model and Incremental Process Model with examples.CO2K4

(or)

8.b. Explain the Scrum framework in Agile development. CO2K3

9. a.Explain software configuration management (SCM), key activities, and their importance.CO3K4

(or)

9.b. Explain theSCM repository. CO3K3

Part C **3 x 12 = 36**

Answer ALL three questions

The answer should not exceed 400 words or four pages

10.a. Explain Software Engineering as a Layered Technology with examples. CO1K2

(or)

10.b. What are Process Patterns? Explain different types and their role in software development.CO1K2

11.a. Describe the Evolutionary Process Models, including Prototyping and the Spiral Model. CO2K3

(or)

11.b.What is Adaptive Software Development (ASD)? Explain its principles and benefits in Agile methodologies. CO2K4

12.a.What is the System Engineering Hierarchy? Explain its levels. CO3K4

(or)

12.b.What is System Modeling? How is it used in product and software engineering? CO3K3

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Staff in charge: Dr.M.Krishnaveni **Number of copies:** 47