Date	Oct-23-2024	Session No	Test

Topic : Software Engineering Unit 1 and 2

Software Engineering Test (30 Marks)

A: Multiple-Choice Questions (10 marks)

1. **Which of the following is not a software process model?**
   a) Waterfall model
   b) Incremental model
   c) Agile model
   d) Design Thinking

2. **What is the main goal of Software Engineering Ethics?**
   a) To improve software quality
   b) To promote ethical decision-making in software development
   c) To increase the efficiency of the development process
   d) To ensure customer satisfaction

3. **In Agile development, what is a sprint?**
   a) A customer feedback meeting
   b) A time-boxed period to complete tasks
   c) A planning session for project milestones
   d) A final product delivery phase

4. **Functional requirements describe:**
   a) How the system should behave
   b) The technical architecture of the system
   c) Constraints on the system
   d) Security requirements

5. **What does SRS stand for in software engineering?**
   a) Software Review Sheet
   b) Software Requirements Specification
   c) Software Resource Statement
   d) Software Response Summary

6. **Which one of the following is a key principle of Agile methods?**
   a) Comprehensive documentation
   b) Customer collaboration over contract negotiation
   c) Following a strict, plan-driven approach
   d) Delivering all components of the software at once

7. **Which of the following is a non-functional requirement?**
   a) The system should allow users to register with a username and password
   b) The system should support up to 500 concurrent users
   c) The system should process payments
   d) The system should display the user's profile information

8. **What is the primary focus of requirements engineering?**
   a) Designing the system architecture
   b) Writing code for system implementation
   c) Identifying, documenting, and maintaining stakeholder needs
   d) Conducting system testing and validation

9. **In a Waterfall model, when does testing occur?**
   a) During every phase of the development process
   b) After the implementation phase
   c) Before the requirements phase
   d) Simultaneously with coding

10. **What does requirements elicitation involve?**
    a) The process of designing the system's architecture
    b) Understanding and gathering requirements from stakeholders
    c) Documenting software bugs found during testing
    d) Implementing the software's core functionality

B: Short Questions (10 marks) - (any 5)

Each question carries **2 marks**.

1. Explain the difference between functional and non-functional requirements. Give one example of each.
2. What is the purpose of the requirements engineering process?
3. What is the key principle of Agile software development?
4. Describe any two software process activities.
5. What is requirements validation, and why is it important in the software development lifecycle?
6. What is the primary document for tracking tasks in an Agile project?
7. What does the term Scrum Master refer to in Agile?

C: Long Question (10 marks) - (any 2)

Each question carries **5 marks**.

1. Discuss Agile software development and its advantages over traditional plan-driven development. Include examples of how Agile handles change and customer involvement during the software development lifecycle.
2. Discuss the requirements management process. How does it help maintain control over a software project?
3. What are requirements elicitation and analysis? Explain its importance and the common challenges faced during this phase.

END