

# **Course: Software Requirements Engineering**

## **Week 15: Question Bank**

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**1. What is the primary objective of Software Requirements Engineering?**

- A. To write programming code
- B. To understand, document, and manage stakeholder needs
- C. To test software performance
- D. To deploy software systems

**2. Which of the following best defines a requirement?**

- A. A completed software feature
- B. A condition or capability needed by a stakeholder
- C. A software bug report
- D. A hardware specification only

**3. Which phase of software development focuses on identifying stakeholder needs?**

- A. Coding
- B. Testing
- C. Requirements Engineering
- D. Maintenance

**4. Which of the following is a functional requirement?**

- A. The system shall load within 2 seconds
- B. The system shall encrypt passwords
- C. The system shall generate monthly payroll reports
- D. The system shall have 99.9% uptime

**5. Which of the following is a non-functional requirement?**

- A. The system shall generate invoices
- B. The user shall log in with credentials
- C. The system shall respond within 3 seconds
- D. The system shall print receipts

**6. What is the output of the requirements engineering process?**

- a. Source code
- b. Test scripts
- c. Software Requirements Specification (SRS)
- d. Deployment plan

**7. Which of the following is NOT a requirement category?**

- a. Functional requirements
- b. Non-functional requirements
- c. Business requirements
- d. Compilation requirements

**8. Which requirement specifies how the system behaves?**

- a. Functional requirement
- b. Legal requirement
- c. Operational requirement
- d. Organizational requirement

**9. Which requirement describes quality attributes of software?**

- a. Functional requirement
- b. Non-functional requirement
- c. User requirement
- d. Transition requirement

**10. What is the purpose of Requirements Engineering?**

- a. To avoid communication with stakeholders
- b. To reduce misunderstandings and project failure
- c. To replace system testing
- d. To eliminate project planning

**11. Which of the following is the first activity in Requirements Engineering?**

- a. Validation
- b. Design
- c. Elicitation
- d. Deployment

**12. Which activity ensures requirements are complete and correct?**

- a. Coding
- b. Validation
- c. Configuration
- d. Compilation

**13. Requirement analysis mainly focuses on:**

- a. Software coding
- b. Requirement understanding and conflict resolution
- c. Network design
- d. Database backup

**14. Which activity documents requirements formally?**

- a. Requirement specification
- b. Requirement coding
- c. Requirement testing
- d. Requirement deployment

**15. Requirement management mainly deals with:**

- a. Server maintenance
- b. Requirement changes and tracking
- c. Database optimization
- d. Hardware procurement

**16. Who is considered a stakeholder in software projects?**

- a. Only software developers
- b. Only customers
- c. Anyone affected by the system
- d. Only testers

**17. Which stakeholder typically defines business objectives?**

- a. End user
- b. Business owner
- c. Tester
- d. Database administrator

**18. Which of the following is NOT a requirement source?**

- a. Stakeholder interviews
- b. Existing documentation
- c. Market regulations
- d. Random assumptions

**19. End users mainly contribute to:**

- a. Technical infrastructure
- b. User requirements
- c. Hardware procurement
- d. Budget estimation

**20. Why is stakeholder identification important?**

- a. To reduce coding effort
- b. To avoid missing important requirements
- c. To remove testing
- d. To eliminate documentation

**21. Which elicitation technique involves direct questioning?**

- a. Observation
- b. Interview
- c. Brainstorming
- d. Prototyping

**22. Which elicitation technique is best for gathering opinions from many participants?**

- a. Interview
- b. Workshop
- c. Questionnaire/Survey
- d. Observation

**23. Observation is especially useful when:**

- a. Stakeholders cannot explain processes clearly
- b. Coding is completed
- c. Software testing begins
- d. Documentation is unavailable

**24. Brainstorming is mainly used to:**

- a. Generate ideas and requirements
- b. Replace documentation
- c. Perform testing
- d. Deploy systems

**25. Which elicitation technique uses an early model of the system?**

- a. Interview
- b. Observation
- c. Prototyping
- d. Inspection

**26. The purpose of requirement analysis is to:**

- a. Write source code
- b. Identify conflicts, ambiguities, and inconsistencies
- c. Perform software testing
- d. Install software

**27. Requirement negotiation occurs when:**

- a. Stakeholders have conflicting requirements
- b. Coding begins
- c. Software fails testing
- d. Deployment is completed

**28. Which of the following is an example of requirement conflict?**

- a. One stakeholder wants strong security while another wants instant access with minimal login controls
- b. Developers write efficient code
- c. Testers execute test cases
- d. Managers approve budgets

**29. Requirement prioritization helps teams to:**

- a. Eliminate stakeholders
- b. Focus on the most important requirements first
- c. Avoid documentation
- d. Reduce testing effort

**30. Which prioritization technique classifies requirements as Must, Should, Could, and Won't?**

- a. Delphi Technique
- b. MoSCoW Method
- c. Fishbone Analysis
- d. SWOT Analysis

**31. Requirement modeling helps to:**

- a. Increase coding errors
- b. Represent requirements visually for better understanding
- c. Eliminate stakeholder participation
- d. Replace requirement documentation

**32. Which diagram represents interactions between users and the system?**

- a. Class Diagram
- b. Use Case Diagram
- c. Sequence Diagram
- d. Activity Diagram

**33. In a use case diagram, the person interacting with the system is called:**

- a. Controller
- b. Actor
- c. Analyst
- d. Operator

**34. Which UML diagram shows system workflow or business process flow?**

- a. Activity Diagram
- b. Class Diagram
- c. Component Diagram
- d. Deployment Diagram

**35. What is the main purpose of a Data Flow Diagram (DFD)?**

- a. Show database tables
- b. Show how data moves within the system
- c. Design software interface
- d. Test software quality

**36. Which DFD component represents movement of information?**

- a. Data Store
- b. Process
- c. Data Flow
- d. External Entity

**37. Which UML diagram illustrates interaction over time?**

- a. Sequence Diagram
- b. Use Case Diagram
- c. State Diagram
- d. Package Diagram

**38. BPMN is mainly used for:**

- a. Database normalization
- b. Business process modeling
- c. Software coding
- d. Security testing

**39. Which modeling approach focuses on user-system interaction?**

- a. Entity Relationship Diagram
- b. Use Case Modeling
- c. Flowchart only
- d. Database Schema

**40. A context diagram is mainly used to:**

- a. Show detailed coding logic
- b. Represent the system and its external interactions at a high level
- c. Design UI screens
- d. Configure networks

**41. SRS stands for:**

- a. Software Requirement Summary
- b. Software Requirements Specification
- c. Software Reporting Standard
- d. System Resource Specification

**42. The primary purpose of an SRS document is to:**

- a. Replace software design
- b. Document agreed requirements clearly
- c. Eliminate requirement changes
- d. Create source code

**43. Which of the following is usually included in an SRS?**

- a. Hardware manufacturing details
- b. Functional and non-functional requirements
- c. Marketing strategy only
- d. Employee payroll data

**44. Which characteristic makes a requirement easy to understand?**

- a. Ambiguous
- b. Complex
- c. Clear and unambiguous
- d. Repetitive

**45. A good requirement should be:**

- a. Incomplete
- b. Testable and verifiable
- c. Vague
- d. Difficult to understand

**46. Which characteristic ensures requirements contain all necessary information?**

- a. Completeness
- b. Complexity
- c. Flexibility
- d. Scalability

**47. Consistency in requirements means:**

- a. Requirements do not conflict with one another
- b. Requirements are always changing
- c. Requirements are written quickly
- d. Requirements ignore stakeholders

**48. Traceable requirements mean:**

- a. They cannot be changed
- b. They can be tracked throughout the project lifecycle
- c. They are optional
- d. They are coded immediately

**49. Verifiable requirements are those that:**

- a. Cannot be tested
- b. Can be measured or tested
- c. Are undocumented
- d. Are ignored

**50. Ambiguous requirements often lead to:**

- a. Better understanding
- b. Reduced project risk
- c. Misunderstandings and project failure
- d. Faster deployment

**51. Requirement validation ensures that:**

- a. The software code is optimized
- b. The right requirements are defined
- c. Testing is completed
- d. Hardware is installed

**52. Requirement verification checks whether:**

- a. Requirements are written correctly and follow standards
- b. Stakeholders are removed
- c. Developers finish coding
- d. Servers are configured

**53. Which technique is commonly used for requirement validation?**

- a. Requirement review
- b. Hardware testing
- c. Coding standards
- d. Data backup

**54. Requirement inspections are conducted to:**

- a. Find defects in requirements documents
- b. Replace system testing
- c. Write code automatically
- d. Install software

**55. Prototyping helps validation by:**

- a. Ignoring stakeholder feedback
- b. Allowing stakeholders to visualize system behavior
- c. Replacing requirement gathering
- d. Eliminating system analysis

**56. Requirement traceability refers to:**

- a. Tracking requirements throughout the project lifecycle
- b. Software coding process
- c. Hardware maintenance
- d. Team scheduling

**57. A traceability matrix is mainly used to:**

- a. Store passwords
- b. Map requirements to design, development, and testing
- c. Replace requirement documents
- d. Conduct interviews

**58. Forward traceability ensures:**

- a. Every requirement is implemented
- b. Code is deleted
- c. Stakeholders are ignored
- d. Budgets are approved

**59. Backward traceability ensures:**

- a. Every implemented feature maps to a requirement
- b. Only developers manage requirements
- c. Testing is unnecessary
- d. Deployment is faster

**60. Why is traceability important?**

- a. To increase ambiguity
- b. To manage requirement changes and ensure coverage
- c. To avoid documentation
- d. To eliminate stakeholders

**61. Requirement change management is important because:**

- a. Requirements never change
- b. Business needs evolve over time
- c. Software projects are static
- d. Coding is unnecessary

**62. Scope creep refers to:**

- a. Controlled requirement management
- b. Uncontrolled addition of requirements
- c. Proper project documentation
- d. Requirement validation

**63. Requirement baseline means:**

- a. Final agreed version of requirements for reference
- b. Random requirement changes
- c. Programming standards
- d. Hardware specification

**64. Version control in requirements management helps to:**

- a. Lose document history
- b. Track changes over time
- c. Avoid documentation
- d. Replace stakeholder involvement

**65. Impact analysis is performed to:**

- a. Ignore requirement changes
- b. Assess effects of requirement modifications
- c. Replace coding
- d. Deploy software faster

**66. Which of the following is a common requirement risk?**

- a. Clear communication
- b. Incomplete requirements
- c. Early stakeholder involvement
- d. Proper documentation

**67. Communication gaps in requirements engineering may result in:**

- a. Better understanding
- b. Misinterpretation of requirements
- c. Improved traceability
- d. Reduced errors

**68. Changing stakeholder expectations mainly create:**

- a. Requirement stability
- b. Requirement volatility
- c. Software testing
- d. Better documentation

**69. Gold plating in software development means:**

- a. Implementing unnecessary features not requested by stakeholders
- b. Proper requirement prioritization
- c. Writing test scripts
- d. Improving requirement quality

**70. Requirement ambiguity mainly causes:**

- a. Confusion among stakeholders and developers
- b. Improved software quality
- c. Faster delivery
- d. Better communication

**71. Requirement prioritization is useful when:**

- a. Resources are unlimited
- b. Time and budget are constrained
- c. Requirements are ignored
- d. Stakeholders are unavailable

**72. Which prioritization technique ranks requirements by business value and urgency?**

- a. MoSCoW
- b. Data normalization
- c. Regression testing
- d. Refactoring

**73. Requirement volatility refers to:**

- a. Stability of requirements
- b. Frequency of requirement changes
- c. Number of developers
- d. Coding complexity

**74. Requirement completeness metric measures:**

- a. Whether requirements cover all needed functionality
- b. Number of programming languages used
- c. Number of bugs fixed
- d. Hardware performance

**75. Requirement quality directly influences:**

- a. Project success and software quality
- b. Only database design
- c. Hardware performance only
- d. Office management

**76. Requirement prototyping is mainly used to:**

- a. Replace software deployment
- b. Visualize and refine requirements before development
- c. Eliminate stakeholder involvement
- d. Perform system maintenance

**77. Which type of prototype is quickly built to gather feedback and later discarded?**

- a. Evolutionary prototype
- b. Throwaway prototype
- c. Operational prototype
- d. Production prototype

**78. Which prototyping tool is commonly used for UI wireframing?**

- a. Compiler
- b. Balsamiq
- c. MySQL
- d. Apache Server

**79. Which tool is widely used for collaborative interface design and prototyping?**

- a. Photoshop only
- b. Figma
- c. Wireshark
- d. Git Bash

**80. Which requirement management tool is commonly used for enterprise requirement traceability?**

- a. IBM DOORS
- b. VLC Media Player
- c. Zoom
- d. Notepad

**81. Which tool is commonly used in Agile teams for backlog and requirement management?**

- a. Jira
- b. Calculator
- c. Paint
- d. Chrome

**82. The major benefit of prototyping is:**

- a. Increased misunderstanding
- b. Early stakeholder feedback and requirement clarification
- c. Elimination of requirement validation
- d. Removal of documentation

**83. Agile Requirements Engineering emphasizes:**

- a. Fixed requirements only
- b. Continuous feedback and iterative development
- c. No stakeholder involvement
- d. Extensive upfront documentation only

**84. In Agile, requirements are usually documented as:**

- a. Technical manuals
- b. User stories
- c. Database schema
- d. Source code

**85. A user story mainly focuses on:**

- a. Programming syntax
- b. User needs and business value
- c. Hardware performance
- d. Testing scripts

**86. Which is the standard format of a user story?**

- a. As a [User], I want [Function], so that [Benefit]
- b. Build software quickly
- c. Write code first, test later
- d. Design database before requirements

**87. Product backlog refers to:**

- a. List of completed tasks only
- b. Prioritized list of project requirements/features
- c. Developer attendance sheet
- d. Hardware inventory

**88. Sprint backlog contains:**

- a. All organizational policies
- b. Tasks selected for the current sprint
- c. Final software documentation
- d. Customer payment details

**89. The Product Owner in Agile mainly:**

- a. Writes all software code
- b. Manages and prioritizes backlog items
- c. Installs servers
- d. Conducts hardware maintenance

**90. Agile requirements are generally:**

- a. Fixed and never change
- b. Flexible and continuously refined
- c. Ignored during development
- d. Approved only after coding

**91. A bank system requires login using fingerprint authentication. This is an example of:**

- a. Functional requirement
- b. Non-functional requirement
- c. Business rule
- d. Constraint only

**92. “The system shall be available 99.99% of the time” is a:**

- a. Functional requirement
- b. Non-functional requirement
- c. User interface requirement
- d. Transition requirement

**93. A stakeholder says, “The system should be easy to use.” This requirement is problematic because it is:**

- a. Clear
- b. Verifiable
- c. Ambiguous and difficult to measure
- d. Functional

**94. If developers implement features not requested by users, this is called:**

- a. Requirement validation
- b. Gold plating
- c. Traceability
- d. Requirement elicitation

**95. Which technique is best when stakeholders are geographically dispersed?**

- a. Face-to-face observation only
- b. Questionnaire or survey
- c. Physical workshop only
- d. Hardware testing

**96. A software team uses sticky notes and backlog prioritization during short iterations. This most likely describes:**

- a. Waterfall model
- b. Agile Requirements Engineering
- c. Spiral model only
- d. Big Bang model

**97. Which requirement quality attribute ensures no contradictions exist?**

- a. Traceability
- b. Completeness
- c. Consistency
- d. Scalability

**98. Which document formally captures software requirements?**

- a. User Manual
- b. SRS Document
- c. Test Log
- d. Source Code Repository

**99. If a requirement cannot be tested, it is considered:**

- a. High quality
- b. Verifiable
- c. Poorly specified
- d. Complete

**100. What is the biggest benefit of effective Requirements Engineering?**

- a. Increased misunderstanding
- b. Reduced project failure and improved software quality
- c. Elimination of software testing
- d. Guaranteed zero requirement changes

## Answers

| Q  | Ans | Q  | Ans | Q  | Ans | Q  | Ans |
|----|-----|----|-----|----|-----|----|-----|
| 1  | b   | 26 | b   | 51 | b   | 76 | b   |
| 2  | b   | 27 | a   | 52 | a   | 77 | b   |
| 3  | c   | 28 | a   | 53 | a   | 78 | b   |
| 4  | c   | 29 | b   | 54 | a   | 79 | b   |
| 5  | c   | 30 | b   | 55 | b   | 80 | a   |
| 6  | c   | 31 | b   | 56 | a   | 81 | a   |
| 7  | d   | 32 | b   | 57 | b   | 82 | b   |
| 8  | a   | 33 | b   | 58 | a   | 83 | b   |
| 9  | b   | 34 | a   | 59 | a   | 84 | b   |
| 10 | b   | 35 | b   | 60 | b   | 85 | b   |
| 11 | c   | 36 | c   | 61 | b   | 86 | a   |
| 12 | b   | 37 | a   | 62 | b   | 87 | b   |
| 13 | b   | 38 | b   | 63 | a   | 88 | b   |
| 14 | a   | 39 | b   | 64 | b   | 89 | b   |
| 15 | b   | 40 | b   | 65 | b   | 90 | b   |
| 16 | c   | 41 | b   | 66 | b   | 91 | a   |
| 17 | b   | 42 | b   | 67 | b   | 92 | b   |
| 18 | d   | 43 | b   | 68 | b   | 93 | c   |

|    |   |    |   |    |   |     |   |
|----|---|----|---|----|---|-----|---|
| 19 | b | 44 | c | 69 | a | 94  | b |
| 20 | b | 45 | b | 70 | a | 95  | b |
| 21 | b | 46 | a | 71 | b | 96  | b |
| 22 | c | 47 | a | 72 | a | 97  | c |
| 23 | a | 48 | b | 73 | b | 98  | b |
| 24 | a | 49 | b | 74 | a | 99  | c |
| 25 | c | 50 | c | 75 | a | 100 | b |