1. What is the primary goal of requirements engineering?

a) To design the system architecture
b) To gather and document user needs
c) To implement the system
d) To test the system

2. Which of the following is NOT a phase of requirements engineering?

a) Requirements elicitation
b) Requirements analysis
c) Requirements design
d) Requirements validation

3. Requirements are classified into which two major categories?

a) Functional and technical
b) Functional and non-functional
c) Technical and operational
d) External and internal

4. Functional requirements define:

a) System constraints
b) System performance levels
c) System behavior and operations
d) System security

5. Non-functional requirements define:

a) The specific functionalities of the system

b) External interface requirements

c) How the system performs certain functions

d) The scope of the project

6. Which of the following is a valid non-functional requirement?

a) User login functionality

b) System must respond to requests within 2 seconds

c) Payment gateway integration

d) Admin dashboard reporting

7. What technique is often used in requirements elicitation?

a) System testing

b) Use case modeling

c) Code review

d) Object-Oriented Design

8. Which stakeholders are usually involved in requirements gathering?

a) Software developers only

b) Customers and end-users only

c) Project managers and designers only

d) All relevant stakeholders, including users, clients, and developers

9. A software requirement specification (SRS) document includes:

a) Testing strategies

b) High-level design

c) Detailed list of requirements

d) User interface prototypes

10. Which method is used to validate requirements?

a) Prototyping

b) Data flow diagrams

c) Use case scenarios

d) Interviews

11. What is the role of requirements analysis in SDLC?

a) To gather user requirements

b) To check feasibility and understand the requirements

c) To develop the system architecture

d) To design the database

12. What does "scope creep" refer to in requirements engineering?

a) Adding extra features without approval

b) Reducing the project scope

c) Verifying project requirements

d) Delaying project implementation

13. Requirements prioritization is important because:

a) It eliminates unnecessary features

b) It ensures that all requirements are implemented at once

c) It helps decide which requirements are most important to implement

d) It helps in database normalization

14. Which of the following is a requirements elicitation technique?

a) System testing

b) Brainstorming

c) Software design

d) Acceptance testing

15. Traceability in requirements engineering refers to:

a) Tracking the origin of requirements through the development process

b) Writing clean code

c) Testing software components

d) Documenting software architecture

16. Prototyping is often used in requirements engineering to:

a) Design the database schema

b) Test system performance

c) Gather feedback from users on system features

d) Write technical specifications

17. Requirements verification ensures that:

a) Requirements are written in legal terms

b) Requirements are accurately described and meet stakeholder needs

c) The system architecture is valid

d) The system performance is acceptable

18. Which of the following best describes a requirement that specifies that the system must handle 10,000 transactions per second?

a) Functional requirement

b) Non-functional requirement

c) Business rule

d) Design constraint

19. Which document serves as a contract between the customer and developer for system development?

a) System Architecture Document

b) Project Plan

c) Software Requirements Specification (SRS)

d) System Test Plan

20. What is the role of stakeholders in the requirements phase?

a) Defining technical aspects of the system

b) Contributing to the design phase

c) Providing input on system needs and requirements

d) Writing the source code

21. When requirements are ambiguous, they can lead to:

a) Faster system development

b) Better understanding among developers

c) Confusion and possible system failure

d) Reduced project cost

22. What type of requirement is "The system must be able to scale to handle 1 million users"?

a) Functional requirement

b) Interface requirement

c) Performance requirement

d) Database requirement

23. The term "requirements validation" means:

a) Ensuring that the system meets regulatory standards
b) Verifying that the documented requirements match user needs
c) Writing the source code
d) Testing the implemented system

24. One of the key challenges in requirements engineering is:

a) Writing the code
b) Identifying unclear and conflicting requirements
c) Implementing algorithms
d) Debugging the system

25. Requirements engineering happens primarily in which phase of SDLC?

a) Design
b) Implementation
c) Requirements gathering
d) Testing

26. The requirements that impose constraints on the design or implementation of the system are called:

a) Functional requirements
b) Non-functional requirements
c) System requirements
d) Design constraints

27. Which of the following is NOT a characteristic of good requirements?

a) Ambiguous

b) Verifiable

c) Complete

d) Consistent

28. The "requirement elicitation" process focuses on:

a) Defining how the system will be tested

b) Gathering information from stakeholders to define system needs

c) Implementing the system architecture

d) Designing the database

29. What does "requirements management" involve?

a) Maintaining a list of requirements and tracking changes over time

b) Designing user interfaces

c) Implementing business logic

d) Writing the software code

30. Which diagram is often used to visually represent functional requirements?

a) Gantt chart

b) Use case diagram

c) Flowchart

d) Entity-relationship diagram