

1. Select the option that suits the Manifesto for Agile Software Development
  - a) Individuals and interactions
  - b) Working software
  - c) Customer collaboration
  - d) All of the mentioned [d]
  
2. Agile Software Development is based on
  - a) Incremental Development
  - b) Iterative Development
  - c) Linear Development
  - d) Both Incremental and Iterative Development [d]
  
3. How many phases are there in Scrum?
  - a) Two
  - b) Three [b]
  - c) Four
  - d) Scrum is an agile method which means it does not have phases

Explanation: There are three phases in Scrum. The initial phase is an outline planning phase followed by a series of sprint cycles and project closure phase.
  
4. In agile development it is more important to build software that meets the customers' needs today than worry about features that might be needed in the future.
  - a) True
  - b) False
  
5. Which of the following is a benefits of well defined SDLC
  - a) Reduce development cost
  - b) Faster time to market
  - c) Improved customer satisfaction
  - d) All of the above [d]
  
6. What is the purpose of the product backlog refinement?
  - a) It is a process for selecting the backlog items before sprint starts
  - b) It is a onetime selection process of backlog items during the sprint
  - c) It is continuous process to create actionable product backlogs [c]
  - d) All of above
  
7. How much time is preferable to spend on Product Backlog refinement?
  - a) 5% of its time for refinement
  - b) 10% of its time for refinement [b]
  - c) 15% of its time for refinement
  - d) None of above

8. An order of the Product Backlog Items should be based on \_\_\_ ?
- a) Value and Risk
  - b) Work Estimates and Available expertise
  - c) Dependencies
  - d) All of above [d]
9. What is the best way to create Product Backlog Items?
- a) collaborative and iterative approach with Development team
  - b) collaborative and iterative approach with whole scrum team [b]
  - c) collaborative and iterative approach with Product Owner
  - d) None of above
10. What are the typical pitfalls of Product Backlog refinement?
- a) There are too many or not enough refinement sessions
  - b) Without involvement of Scrum team turning requirements into user stories
  - c) Not involvement whole team and stakeholders
  - d) All of above [d]
11. Identify the simplest model of SDLC?
- a) Agile
  - b) RAD
  - c) Waterfall [b]
  - d) Spiral
12. Which is the following is the most important feature of the spiral model?
- a) Efficiency management
  - b) Time management
  - c) Risk management
  - d) Quality management
13. Which of the following is the first step of SDLC?
- a) Coding
  - b) Design
  - c) Preliminary Investigation and Analysis
  - d) Testing
14. What is the purpose of using the Fibonacci sequence (e.g., 1, 2, 3, 5, 8, 13, etc.) in Agile estimation?
- a) To prioritize user stories
  - b) To assign story points for complexity estimation
  - c) To determine the sprint duration
  - d) To track individual team member's velocity
- Answer: b) To assign story points for complexity estimation

15. Which Agile practice involves the team reflecting on their performance to improve effectiveness continuously?

- a) Sprint Retrospective
- b) Daily Stand-up
- c) Sprint Planning
- d) Backlog Refinement

Answer: a) Sprint Retrospective

16. Which Agile practice encourages the constant evolution and improvement of processes and teamwork?

- a) Sprint Review
- b) Daily Stand-up
- c) Retrospective
- d) Sprint Planning

Answer: c) Retrospective

17. The stakeholders' role in Agile primarily involves:

- a) Setting project timelines
- b) Reviewing the product and providing feedback
- c) Leading the daily stand-up meetings
- d) Assigning tasks to team members

Answer: b) Reviewing the product and providing feedback

18. Which role in Agile is responsible for delivering a potentially releasable increment at the end of each sprint?

- a) Scrum Master
- b) Product Owner
- c) Development Team
- d) Agile Coach

Answer: c) Development Team

19. Lean methodology aims to:

- a) Maximize efficiency by eliminating waste
- b) Prioritize individuals and interactions over processes and tools
- c) Use fixed-length iterations called sprints
- d) None of the above

Answer: a) Maximize efficiency by eliminating waste

20. Which Agile approach emphasizes continuous improvement, workflow visualization, and limiting work in progress?

- a) Scrum
- b) Kanban
- c) XP

d) Lean

Answer: b) Kanban

21. Which phase of the SDLC involves creating a detailed plan for the software project?

a) Requirements Analysis

b) Planning

c) Design

d) Implementation

Answer: b) Planning

22. What is the primary goal of Kanban?

a) Maximizing the utilization of resources

b) Minimizing the time spent on planning

c) Achieving a smooth, continuous flow of work

d) Completing as many tasks as possible in each sprint

Answer: c) Achieving a smooth, continuous flow of work

23. Which methodology focuses on breaking down features into small, manageable tasks?

a) TDD

b) BDD

c) Kanban

d) FDD

Answer: d) FDD (Feature-Driven Development)

24. Which phase of the SDLC involves coding and testing the software?

a) Requirements Analysis

b) Design

c) Implementation

d) Maintenance

Answer: c) Implementation

25. What is the primary advantage of using TDD?

a) Reduced development time

b) Improved code quality

c) Enhanced project management

d) Simplified deployment process

Answer: b) Improved code quality

26. How much time does each iteration in agile methodology take?

a) 1-2 weeks

b) 2-3 weeks

c) 1-4 weeks

d) 1-2 months

Answer: C) 1-4 weeks

27. Does agile methodology frequently ask user's feedback?

- a) Yes
- b) No
- c) only when the project requirement needs

Answer: A) YES

28. Which of the following testing types is primarily focused on ensuring that the software system as a whole meet specified requirements and works as expected?

- a) Unit testing
- b) Integration testing
- c) System testing
- d) Acceptance testing

Answer: c) System testing

29. What is the recommended frequency for Sprint reviews in Agile development?

- a) Weekly
- b) Bi-weekly
- c) Monthly
- d) Quarterly

Answer: b) Bi-weekly

30. How long should a typical daily standup meeting last?

- a) 15 minutes
- b) 30 minutes
- c) 45 minutes
- d) 1 hour

Answer: a) 15 minutes

31. What is the purpose of the Requirements phase in SDLC?

- a) To design the user interface
- b) To gather and analyze project requirements
- c) To develop the software code
- d) To test the software for bugs

Answer: B) To gather and analyze project requirements

32. Which phase of SDLC involves creating detailed design specifications and architectural diagrams?

- a) Testing
- b) Implementation
- c) Design
- d) Deployment

Answer: C) Design

33. What is the primary goal of the Testing phase in SDLC?

- a) To write the software code
- b) To design the user interface
- c) To verify that the software meets requirements and is bug-free
- d) To gather project requirements

Answer: C) To verify that the software meets requirements and is bug-free

34. Which phase of SDLC involves deploying the software to the production environment?

- a) Design
- b) Implementation
- c) Testing
- d) Deployment

Answer: D) Deployment

35. What is a key principle of Agile methodologies?

- a) Strict adherence to detailed documentation
- b) Emphasis on following a rigid plan
- c) Flexibility and adaptability to changing requirements
- d) Long development cycles with minimal customer involvement

Answer: C) Flexibility and adaptability to changing requirements

36. How many components does the Kanban board have?

- a) 3
- b) 4
- c) 5
- d) 6

Answer: C) 5

Explanation : Kanban board has 5 components: Visual signals, columns, work-in-progress limits, a commitment point, and a delivery point.

37. Which of the following are involved in releasing the plan?

- a) Product owner
- b) Scrum master
- c) Development team
- d) Stakeholders
- e) All of the above

Answer: E) All of the above

Explanation: Following are involved in releasing the plan: product owner, scrum master, development team, and stakeholders.

38. Which of the following frameworks are used in agile methodology?

- a) FDD
- b) Kanban
- c) Scrum
- d) All of the above

Answer: D) All of the above

Explanation: Kanban, scrum, and FDD are the most popular framework which is used in agile methodology.

39. A product is built in a series of repetitions called \_\_\_\_

- a) Scrum
- b) Kanban
- c) Sprints

Answer: C) Sprints

Explanation: A product is built in a series of repetitions called Sprints.

40. is a framework that is used to execute agile software development. It also involves real-time communication of capacity and full transparency of work.

- a) Scrum
- b) Kanban
- c) Sprints

Answer: B) Kanban

Explanation: Kanban is a framework that is used to execute agile software development. It also involves real-time communication of capacity and full transparency of work.

41. Imagine you're designing a mobile app. What design principles might you prioritize?

- a) Complex features for advanced users only.
- b) Intuitive user interface for a smooth user experience.
- c) Packing in as many features as possible regardless of usability.
- d) User interface color scheme only.

answer: (b)Intuitive user interface for a smooth user experience.

42. Which of the following is NOT a core principle of good system design?

- a) Scalability - Ability to handle increased user load.
- b) Security - Measures to protect data and system access.
- c) Complexity - The more complex, the better.
- d) Maintainability - Ease of making modifications in the future

answer: c) Complexity - The more complex, the better

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43. Identify the incorrect phase of STLC(Software Testing Life cycle).

- a) test closure
- b) coding
- c) requirement analysis
- d) test planning

answer:(b) coding

44. Parallel computing involves:

- a) Executing multiple tasks sequentially on a single processor.
- b) Breaking down a large problem into smaller tasks and processing them simultaneously.
- c) Increasing the clock speed of a single CPU core.
- d) Reducing the size of transistors in a processor.

answer:(b) Breaking down a large problem into smaller tasks and processing them simultaneously.

45. Pipelining is a technique used in CPUs to improve performance. What is the main drawback of pipelining?

- a) Increased power consumption
- b) Reduced clock speed
- c) Balanced workload distribution among cores.
- d) Less efficient for short, simple instructions

answer: (d) Less efficient for short, simple instructions

46. What is the primary responsibility of the Scrum Master?

- a) Setting project priorities
- b) Ensuring the team follows Scrum principles
- c) Designing the product
- d) Managing the product backlog

Answer: option-a

Explanation: The primary responsibility of the Scrum Master is to ensure the team follows Scrum principles, practices, rules, and values.

47. How long does a typical Sprint last in Scrum?

- a) 1 week
- b) 2 weeks
- c) 1 month
- d) 3 months

Answer: option-b

Explanation: A typical Sprint in Scrum lasts 2-4 weeks, with 2 weeks being the most common duration.

48. What is the main purpose of the Sprint Review in Scrum?



- a) Identifying and removing project roadblocks
- b) Inspecting the increment and adapting the product backlog
- c) Planning the next Sprint
- d) Evaluating team performance

Answer: option-b

Explanation: The main purpose of the Sprint Review is to inspect the increment and adapt the product backlog, ensuring that the project stays on track and meets stakeholder expectations.

49. Which of the following is NOT a role in Scrum?

- a) Product Owner
- b) Scrum Master
- c) Project Manager
- d) Scrum Team

Answer-option-c

Explanation: In Scrum, the role of the Project Manager is not explicitly defined, as the Scrum Team is self-organizing and cross-functional.

50. What is the main purpose of the Sprint Backlog in Scrum?

- a) To define the project scope
- b) To plan the next Sprint
- c) To track project progress
- d) To prioritize product features

Answer: option-b

Explanation: The main purpose of the Sprint Backlog is to plan the next Sprint, detailing the work items the team has committed to delivering during that Sprint.