

3.🧠 Quick Revision – Agile Methodology (Short Notes)

✓ What is Agile?

Agile is an **iterative and incremental** software development approach that focuses on:

- **Customer collaboration**
 - **Responding to change**
 - **Early & continuous delivery**
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🔗 Agile vs Traditional (Waterfall):

Factor	Traditional (Waterfall)	Agile
Process	Sequential	Iterative & Incremental
Flexibility	Rigid	Highly adaptive
Documentation	Extensive	Just enough
Customer Involvement	Low	High

🚀 Agile Phases:

1. **Concept/Initiation**
 2. **Inception (Planning)**
 3. **Iteration/Increment Planning**
 4. **Development & Testing**
 5. **Release**
 6. **Maintenance**
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📌 4 Pillars of Agile:

1. **Individuals & Interactions** over processes/tools
 2. **Working Software** over comprehensive documentation
 3. **Customer Collaboration** over contract negotiation
 4. **Responding to Change** over following a plan
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📋 12 Agile Principles:

(Examples)

- Deliver working software frequently
 - Business people and developers work together daily
 - Simplicity—the art of maximizing the amount of work not done—is essential
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📦 Agile Frameworks:

- **Scrum**: Most widely used
 - **Kanban**: Visualize workflow
 - **XP (Extreme Programming)**: Focus on code quality and continuous improvement
 - **SAFe (Scaled Agile Framework)**: Enterprise-level Agile for large organizations
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💡 Scrum Roles:

1. **Product Owner** – Owns product backlog, sets priorities
 2. **Scrum Master** – Facilitates process, removes blockers
 3. **Development Team** – Builds the product
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⌚ Scrum Events:

- **Sprint Planning**
 - **Daily Stand-up (Scrum)**
 - **Sprint Review**
 - **Sprint Retrospective**
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📋 Scrum Artifacts:

- **Product Backlog** – All features

- **Sprint Backlog** – Selected tasks for the sprint
- **Burndown Chart** – Remaining work in sprint

1. Which of the following is not a core value of Agile?

- A. Customer collaboration over contract negotiation
- B. Working software over comprehensive documentation
- C. Processes and tools over individuals and interactions
- D. Responding to change over following a plan

Answer: C

Agile values **individuals and interactions** more than tools.

2. What is the duration of a typical Scrum sprint?

- A. 1-2 days
- B. 1-4 weeks
- C. 1-6 months
- D. Ongoing

Answer: B

Scrum sprints typically last **1 to 4 weeks**.

3. Which role is responsible for removing impediments in Scrum?

- A. Product Owner
- B. Development Team
- C. Scrum Master
- D. Project Manager

Answer: C

The **Scrum Master** ensures the team's productivity by removing roadblocks.

4. In Agile, which artifact contains a prioritized list of features?

- A. Sprint Backlog
- B. Product Backlog
- C. Burndown Chart
- D. SRS Document

Answer: B

The **Product Backlog** contains all desired features in priority order.

5. Which Agile framework uses cards and boards to visualize tasks?

- A. Scrum
- B. XP
- C. SAFe
- D. Kanban

Answer: D

Kanban emphasizes visualizing work using cards/boards.

6. What is the main goal of the Sprint Retrospective?

- A. Planning future work
- B. Checking daily progress
- C. Demonstrating finished work
- D. Improving future sprints

Answer: D

Retrospective is for **reflection and continuous improvement**.

7. What does the burndown chart show?

- A. Completed features
- B. Remaining work in a sprint
- C. Planned sprint goals
- D. Developer productivity

Answer: B

Burndown chart shows **remaining work** vs. time.

8. What is the maximum duration of a daily stand-up?

- A. 10 minutes
- B. 15 minutes
- C. 30 minutes
- D. 1 hour

Answer: B

15 minutes is the max time for a stand-up.

9. Which Agile framework is best for large-scale enterprises?

- A. Scrum
- B. XP
- C. SAFe
- D. Kanban

Answer: C

SAFe is built for scaling Agile across large organizations.

10. Agile encourages working software over:

- A. Comprehensive design
- B. Project plans
- C. Comprehensive documentation
- D. Budget planning

Answer: C

Agile prefers **working software** over large documents.

11. Which Agile principle emphasizes face-to-face conversation?

- A. Welcome changing requirements
- B. Working software is the measure of progress
- C. The best communication is face-to-face
- D. Deliver software frequently

Answer: C

12. Agile development delivers software:

- A. At the end of the project
- B. Only after thorough testing
- C. Frequently and iteratively
- D. After full documentation

Answer: C

13. In Scrum, which meeting is used to plan sprint tasks?

- A. Sprint Review
- B. Sprint Planning
- C. Daily Scrum
- D. Backlog Grooming

Answer: B

14. Agile promotes sustainable development. What does it mean?

- A. Team can work extra hours
- B. Working late is encouraged
- C. Maintain constant pace indefinitely
- D. Work is unpredictable

Answer: C

15. Extreme Programming (XP) emphasizes:

- A. One-time delivery
- B. Pair programming & TDD
- C. Fixed scope
- D. Heavy documentation

Answer: B

16. The responsibility of prioritizing items in the backlog lies with:

- A. Scrum Master
- B. Product Owner
- C. QA Lead
- D. Project Manager

Answer: B

17. Agile allows requirement changes:

- A. Never
- B. Only at the beginning
- C. Only after design
- D. Anytime during the project

Answer: D

18. Agile Manifesto was created in:

- A. 2000
- B. 2001
- C. 1999
- D. 2005

Answer: B

19. What technique is commonly used to estimate story points in Agile?

- A. Flowcharting
- B. Delphi
- C. Planning Poker
- D. Pareto

Answer: C

20. Which of these is NOT a Scrum artifact?

- A. Product Backlog
- B. Sprint Backlog
- C. Velocity Chart
- D. Burndown Chart

Answer: C

Velocity Chart is a metric, not an official artifact.

Set 2:

1. Which of the following is *not* one of the 4 pillars of Agile?

- A. Individuals and interactions over processes and tools
- B. Working software over comprehensive documentation
- C. Contract negotiation over customer collaboration
- D. Responding to change over following a plan

Answer: C

Explanation: Agile prefers **customer collaboration** over contract negotiation.

2. What does a Burndown Chart represent?

- A. Number of completed test cases
- B. Amount of work remaining in a sprint
- C. Total number of bugs
- D. Number of users in backlog

Answer: B

Explanation: Burndown charts track remaining work across time in a sprint.

3. In Scrum, who is responsible for removing roadblocks faced by the development team?

- A. Product Owner
- B. Project Manager
- C. Scrum Master
- D. Business Analyst

Answer: C

Explanation: The Scrum Master ensures smooth functioning by eliminating blockers.

4. What is the time-boxed duration of a typical Sprint in Scrum?

- A. 1-2 days
- B. 1-2 months
- C. 1-4 weeks
- D. 4-8 weeks

Answer: C

Explanation: Standard sprint duration is **1–4 weeks**.

5. The first Agile Manifesto value is:

- A. Responding to change over following a plan
- B. Working software over documentation
- C. Individuals and interactions over processes and tools
- D. Customer collaboration over contract negotiation

Answer: C

Explanation: People and communication are prioritized.

6. Which Agile framework is best for large-scale enterprise-level projects?

- A. Scrum
- B. Kanban
- C. SAFe
- D. XP

Answer: C

Explanation: SAFe (Scaled Agile Framework) is used for large teams across the enterprise.

7. Which Agile methodology emphasizes pair programming and continuous integration?

- A. Scrum
- B. Kanban
- C. XP
- D. SAFe

Answer: C

Explanation: XP (Extreme Programming) promotes CI, TDD, pair programming.

8. What is the primary responsibility of the Product Owner?

- A. Remove team impediments
- B. Manage the sprint burndown
- C. Prioritize backlog items
- D. Conduct daily stand-ups

Answer: C

Explanation: The Product Owner manages the Product Backlog.

9. The meeting where the team reflects on improvement is called:

- A. Sprint Planning
- B. Daily Stand-up
- C. Sprint Review
- D. Sprint Retrospective

Answer: D

Explanation: Retrospective focuses on process improvement.

10. What Agile principle supports sustainable development?

- A. Build projects around motivated individuals
- B. Simplicity is essential
- C. Agile processes promote sustainable development
- D. Working software is the primary measure of progress

Answer: C

Explanation: Agile encourages a consistent and maintainable work pace.

11. What is the recommended maximum team size in Scrum?

- A. 3-5
- B. 6-9
- C. 10-15
- D. 15+

Answer: B

Explanation: Scrum teams are typically 6–9 members.

12. What does Kanban use to visualize workflow?

- A. Gantt Chart
- B. Flow Diagram
- C. Board with columns
- D. Burndown Chart

Answer: C

Explanation: Kanban boards represent work items in various stages.

13. In Agile, what is a ‘user story’?

- A. Bug report
- B. Use case diagram
- C. High-level requirement written from end-user perspective
- D. Task in the project plan

Answer: C

Explanation: User stories describe functionality from a user’s point of view.

14. What happens in a Sprint Review?

- A. Planning the next sprint
- B. Discussing process improvements
- C. Demonstrating completed features
- D. Estimating story points

Answer: C

Explanation: Sprint Review shows completed work to stakeholders.

15. Agile encourages which of the following?

- A. Big upfront planning
- B. Contract negotiation
- C. Responding to change
- D. Following a rigid plan

Answer: C

Explanation: Agile embraces changes in requirements and priorities.

16. Which of these is *not* part of Scrum artifacts?

- A. Product Backlog
- B. Sprint Backlog
- C. Burndown Chart
- D. Gantt Chart

Answer: D

Explanation: Gantt charts are used in traditional project management, not Scrum.

17. What is the role of ‘velocity’ in Agile?

- A. Measure of testing coverage
- B. Number of hours worked
- C. Amount of work completed in a sprint
- D. Number of features developed

Answer: C

Explanation: Velocity is a key metric to measure team capacity per sprint.

18. Agile favors which type of communication?

- A. Email updates
- B. Formal documentation
- C. Face-to-face conversation
- D. Weekly meetings

Answer: C

Explanation: Face-to-face conversation is the most effective form.

19. Which one is an Agile estimation technique?

- A. PERT
- B. CPM
- C. Planning Poker
- D. Monte Carlo

Answer: C

Explanation: Planning Poker is a consensus-based estimation technique.

20. The Agile Manifesto was created in:

- A. 1995
- B. 2001
- C. 2005
- D. 2010

Answer: B

Explanation: The Agile Manifesto was formulated in 2001.

Set3:

Agile Methodology – MCQ Set 3 (Q41–Q60)

41. What is the primary measure of progress in Agile?

- A. Number of story points completed
- B. Working software
- C. Completed documentation
- D. Number of tasks assigned

Answer: B

Explanation: Agile values "Working software over comprehensive documentation" as the main progress indicator.

42. In Scrum, who is responsible for maximizing the value of the product?

- A. Scrum Master
- B. Product Owner
- C. Development Team
- D. Project Manager

Answer: B

Explanation: The Product Owner manages the product backlog and ensures value delivery.

43. What is a “time-boxed” event in Agile?

- A. An event scheduled without any duration
- B. An event with a fixed maximum duration
- C. An event that can extend based on tasks
- D. An unscheduled meeting

Answer: B

Explanation: All Agile events like sprints and stand-ups are time-boxed to promote focus and discipline.

44. What happens in the Sprint Retrospective?

- A. Review product backlog
- B. Review team performance and improve process
- C. Code testing
- D. Sprint planning for the next iteration

Answer: B

Explanation: Teams reflect on the past sprint and plan improvements in the Retrospective.

45. Which of the following is *not* one of the Agile Manifesto values?

- A. Individuals and interactions over processes and tools
- B. Following a plan over responding to change
- C. Working software over comprehensive documentation
- D. Customer collaboration over contract negotiation

Answer: B

Explanation: Agile favors **responding to change** over following a rigid plan.

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

- A. Coding
- B. Testing
- C. Removing impediments and coaching the team
- D. Approving releases

Answer: C

Explanation: Scrum Master serves the team by removing blockers and promoting Scrum principles.

47. Which Agile framework uses a Kanban board for managing flow?

- A. Scrum
- B. XP
- C. SAFe
- D. Kanban

Answer: D

Explanation: Kanban visualizes work using Kanban boards to manage flow.

48. What is the length of a typical sprint in Scrum?

- A. 2–4 months
- B. 2–4 weeks
- C. 1–2 years
- D. 5–6 days

Answer: B

Explanation: Sprints usually last **2–4 weeks** to balance agility and delivery.

49. What is included in the Sprint Backlog?

- A. All product requirements
- B. Tasks completed in past sprints
- C. Selected items from Product Backlog + plan to deliver them
- D. Team salary details

Answer: C

Explanation: Sprint Backlog includes selected user stories + actionable tasks for the sprint.

50. Which Agile framework is best for large-scale enterprises?

- A. XP
- B. Kanban
- C. Scrum
- D. SAFe

Answer: D

Explanation: SAFe (Scaled Agile Framework) is tailored for enterprise-level Agile adoption.

51. What is a Burndown Chart used for?

- A. Track team's mood
- B. Track amount of work remaining
- C. Track project budget
- D. Track test cases

Answer: B

Explanation: Burndown Chart shows progress toward sprint goals by displaying remaining work.

52. What is the duration of a Daily Scrum (Stand-up)?

- A. 45 minutes
- B. 1 hour
- C. 15 minutes
- D. 2 hours

Answer: C

Explanation: The Daily Scrum is **15 minutes max** and helps synchronize the team.

53. In Scrum, the Development Team should ideally be:

- A. Managed by Product Owner
- B. Cross-functional and self-organizing
- C. Only backend developers
- D. Separate from testing

Answer: B

Explanation: Agile promotes cross-functional, self-managed teams.

54. Which of these is an Agile *artifact*?

- A. Scrum Guide
- B. Product Backlog
- C. Sprint Planning
- D. Daily Stand-up

Answer: B

Explanation: Product Backlog, Sprint Backlog, and Burndown Charts are Scrum artifacts.

55. What does XP (Extreme Programming) focus on?

- A. Heavy documentation
- B. Code reuse
- C. Technical excellence and pair programming
- D. Kanban boards

Answer: C

Explanation: XP emphasizes continuous integration, test-driven development, and pair programming.

56. In Agile, change is:

- A. Avoided
- B. Only allowed in Waterfall
- C. Welcomed, even late in development
- D. Prevented after planning

Answer: C

Explanation: Agile embraces changes to meet customer needs even late in development.

57. Agile teams should deliver:

- A. Bug-free documentation
- B. Complete user manuals
- C. Working software frequently
- D. Theoretical models

Answer: C

Explanation: Frequent delivery of **working software** is a key Agile goal.

58. What is the first event in a Sprint?

- A. Sprint Planning
- B. Sprint Retrospective
- C. Daily Scrum
- D. Code Review

Answer: A

Explanation: Each sprint begins with a **Sprint Planning** meeting.

59. In SAFe, what is a Program Increment (PI)?

- A. A unit of currency
- B. A release cycle of multiple sprints
- C. A tool for Scrum Master
- D. A bug tracker

Answer: B

Explanation: A **PI** is a time-boxed planning and release cycle typically spanning 5 iterations.

60. Which Agile principle emphasizes sustainable development?

- A. Simplicity
- B. Technical excellence
- C. Agile processes promote sustainable development
- D. Customer satisfaction

Answer: C

Explanation: One of the **12 Agile Principles** is to promote a **sustainable pace** of work.

1. Which of the following is *not* an Agile principle?

- A. Working software is the primary measure of progress
- B. Customer collaboration over contract negotiation
- C. Following a strict project plan
- D. Responding to change over following a plan

Answer: C

2. The Agile Manifesto consists of how many principles?

- A. 10
- B. 12
- C. 14
- D. 8

Answer: B

3. In Scrum, who is responsible for maximizing the value of the product?

- A. Scrum Master
- B. Product Owner
- C. Development Team
- D. Project Manager

Answer: B

4. What is the usual duration of a Scrum Sprint?

- A. 1 day
- B. 1 week
- C. 2–4 weeks
- D. 6–8 weeks

Answer: C

5. What is the purpose of a *daily Scrum* meeting?

- A. Review project status
- B. Assign new tasks
- C. Synchronize activities and plan for the next 24 hours
- D. Prepare test reports

Answer: C

6. Agile encourages face-to-face communication because:

- A. It helps avoid documentation
- B. It improves efficiency and understanding
- C. It reduces the workload
- D. It impresses the customer

Answer: B

7. Which of the following best describes the Scrum framework?

- A. Predictive model
- B. Iterative and incremental
- C. Sequential
- D. Documentation-driven

Answer: B

8. What does the burndown chart show?

- A. Bugs found
- B. Sprint velocity
- C. Remaining work over time
- D. Budget spent

Answer: C

9. What is a product backlog?

- A. A list of bugs
- B. A prioritized list of features, enhancements, and fixes
- C. A release note
- D. A report on previous sprint

Answer: B

10. Which of these is *not* a Scrum artifact?

- A. Product Backlog
- B. Sprint Backlog
- C. Burnup Chart
- D. Increment

Answer: C

11. Agile promotes:

- A. Detailed documentation
- B. Contract negotiation
- C. Process and tools over individuals
- D. Individuals and interactions over processes and tools

Answer: D

12. Which of the following is *not* part of the Agile Manifesto's 4 values?

- A. Individuals and interactions over processes and tools
- B. Working software over comprehensive documentation
- C. Contract negotiation over customer collaboration
- D. Responding to change over following a plan

Answer: C

13. What is the main difference between V-Model and Agile?

- A. V-Model is flexible; Agile is rigid
- B. Agile is iterative; V-Model is sequential
- C. Agile lacks testing; V-Model emphasizes it
- D. Agile uses documentation only

Answer: B

14. Who facilitates the Scrum meetings and removes impediments?

- A. Product Owner
- B. Scrum Master
- C. Developer
- D. Tester

Answer: B

15. What is the primary goal of each Sprint?

- A. Complete all the documentation
- B. Deliver a potentially shippable product increment
- C. Finish testing phase
- D. Start deployment

Answer: B

16. Agile frameworks include all except:

- A. Scrum
- B. Kanban

C. Waterfall

D. XP

Answer: C

17. Which Agile framework is best suited for Visual Boards?

A. XP

B. Scrum

C. Kanban

D. SAFe

Answer: C

18. Which role writes the User Stories in Agile?

A. Developer

B. Scrum Master

C. Product Owner

D. Customer

Answer: C

19. The 4 pillars of Agile are defined in:

A. Agile Framework

B. Agile Manifesto

C. Scrum Guide

D. SAFe

Answer: B

20. Incremental development is best described as:

A. Releasing the whole product at once

B. Adding features in chunks through each iteration

C. Ignoring customer feedback

D. Writing the entire codebase upfront

Answer: B