# Chapter 17

*Student:* _____

1. Traditional approaches to project management concentrate firmly on

   A. Thorough planning up front.
   B. New technology.
   C. Flexibility.
   D. Change.
   E. Iterative development.

2. Using traditional approaches to project management, once the project scope has been firmly established, every detail of the project is defined through the _____.

   A. Deliverables
   B. Job tickets
   C. WBS
   D. Estimates
   E. Risks

3. Project _____ varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

   A. Stability
   B. Balance
   C. Unity
   D. Uncertainty
   E. Degree

4. In many cases, _____ only begin to understand what they actually desire when they are provided with someone's impression of what they want.

   A. Project managers
   B. Customers
   C. Sponsors
   D. Team leaders
   E. All of the above are correct

5. When determining project uncertainty, _____ can be a source of unpredictability.

    A. Technology
    B. Clients
    C. Vendors
    D. Sponsors
    E. WBS

6. When considering traditional versus agile project management, all of the following are part of the traditional project management model EXCEPT

    A. Fixed scope.
    B. Deliverables.
    C. Continuous design.
    D. Low uncertainty.
    E. Conventional project teams.

7. When considering traditional versus agile project management, all of the following are part of the agile project management model EXCEPT

    A. Flexibility.
    B. High uncertainty.
    C. Embrace change.
    D. Design up front.
    E. Self-organized project teams.

8. _____ represents a fundamental shift away from the traditional plan-driven project management approach by adopting a more experimental and adaptive approach to managing projects.

    A. Agile project management
    B. Hybrid project management
    C. Uncertain project management
    D. Focused project management
    E. Interactive project management

9. Iterations are short time frames (time boxes) that typically last from _____.

    A. 1-4 days
    B. 1-2 weeks
    C. 1-4 weeks
    D. 4-7 weeks
    E. 7-12 weeks

10. When considering the agile project management process, at the end of each iteration

    A. Team members are released to work on other projects.
    B. The Scrum master assigns daily tasks to team members.
    C. Product owner determines whether or not the project is complete.
    D. The Scrum master can terminate the project.
    E. Stakeholders and customers review progress and reevaluate priorities.

11. Scrum uses a series of coordinated meetings to manage the development process. Which of the following is held at the start of each sprint? During this meeting the product owner and development team negotiate which product backlog items the team will attempt during the next sprint.

    A. Sprint planning meeting
    B. Release planning meeting
    C. Sprint review meeting
    D. Daily Scrum meeting
    E. Sprint retrospective meeting

12. Iterative development processes provide the following important advantages EXCEPT

    A. Continuous integration of the evolving product.
    B. Frequent demonstration of progress to increase the likelihood that the end product will satisfy customer needs.
    C. Early detection of defects and problems.
    D. Ease of comparing actual information against planned.
    E. Constant verification and validation of the evolving product.

13. Scrum relies on three key roles. A person who facilitates the Scrum process and resolves impediments at the team and organizational level is called a

    A. Scrum master.
    B. Project champion.
    C. Scrum leader.
    D. Product owner.
    E. Production coordinator.

14. Specific features are created using Scrum methodology according to four distinct phases. Which of the following places these phases in the correct order?

    A. Design, Build, Analysis, Test
    B. Monitor, Design, Build, Test
    C. Analysis, Design, Build, Test
    D. Design, Build, Monitor, Test
    E. Analysis, Design, Build, Monitor

15. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when employing business-driven prioritizations of requirements and features to satisfy customer needs?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

16. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when creating a flow of value to customers by chunking project delivery into small, functioning increments?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

17. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when testing assumptions early and building working prototypes to solicit customer feedback and refine product requirements?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

18. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when team members decide among themselves who should do what and what should be done?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

19. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when teams reflect, learn, and adapt to change, and when project work updates the plan?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

20. A new holistic approach in new commercial product development efforts where the cross-functional team collaborating to develop a new product is compared to rugby, where the whole team tries to go the distance as a unit is known as

    A. Scrum.
    B. Specific project management.
    C. Traditional project management.
    D. Prioritized WBS.
    E. Functional teams.

21. A _____ is defined as a piece of a product that delivers some useful functionality to a customer.

    A. Scrum
    B. Value
    C. Spirit
    D. Feature
    E. Priority

22. Specific features are created using Scrum methodology according to four distinct phases. Which of the following is NOT one of these phases?

    A. Analysis
    B. Monitor
    C. Build
    D. Test
    E. Design

23. Scrum relies on three key roles. A person who acts on behalf of customers to represent their interests and who is responsible for ensuring that the development team focuses their efforts on developing a project that will fulfill the business objective of the project is called a

A. Customer service representative.
B. Project champion.
C. Customer liaison.
D. Product owner.
E. Production coordinator.

24. Which of the following is <u>NOT</u> true of a development team using Scrum methodology?

A. The team is self-organizing
B. They have the authority to change features and priorities at the end of each sprint
C. The team is typically made up of 5 to 9 people
D. They are responsible for achieving the commitments they make at the sprint planning and review meetings
E. There are no designated roles or titles

25. Scrum uses a series of coordinated meetings to manage the development process. During which of the following is it discussed what was done since the last meeting, what will be done before the next meeting, and if anything is limiting performance?

A. Sprint planning meeting
B. Release planning meeting
C. Sprint review meeting
D. Daily Scrum meeting
E. Sprint retrospective meeting

26. Scrum uses a series of coordinated meetings to manage the development process. During which of the following are goals and the general plan for the project established?

A. Sprint planning meeting
B. Release planning meeting
C. Sprint review meeting
D. Daily scrum meeting
E. Sprint retrospective meeting

27. The _____ is the customer's prioritized list of key features desired when the project is completed.


    A. Project master
    B. Spirit backlog
    C. Creative backlog
    D. Product backlog
    E. Project list

28. _____ represents the amount of work the team commits to complete during the next sprint.


    A. Sprint backlog
    B. Product backlog
    C. Project backlog
    D. Schedule backlog
    E. Task backlog

29. Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. In practice this condition is called


    A. Incremental delivery.
    B. Staging.
    C. Feature collaboration.
    D. Scrum.
    E. Scaling.

30. For some agile projects, _____ are established, which is the maximum budget that should not be exceeded in the development of a given product or service.


    A. Project accounts
    B. Contingencies
    C. Agile accounts
    D. Ceilings
    E. Scrum logs

31. _____ project management requires a fairly high degree of predictability to be effective.


    _____

32. _____ project management concentrates firmly on thorough planning up front.


    _____

33. Project _____ varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

_____

34. _____ projects evolve rather than are executed.

_____

35. _____ project management involves high customer interaction.

_____

36. Short time frames (time boxes) that typically last from one to four weeks are called _____.

_____

37. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The first phase is _____ and review of functional requirements that will be needed to complete the feature.

_____

38. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The second phase is the development of a _____ that meets the requirements of the feature.

_____

39. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The third phase is to _____ the feature so that it is functional.

_____

40. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The last phase includes the _____ and documentation of the feature.

_____

41. In place of a product WBS, Scrum uses product _____ as deliverables.

_____

42. The _____ facilitates the Scrum process and resolves impediments at the team and organizational level.

_____

43. The development team is a key role when considering the Scrum process. The team is _____ in the sense that they decide among themselves who should do what and what should be done.

_____

44. When teams reflect, learn, and adapt to change, when their work updates the plan, they are following the agile project management principle of _____.

_____

45. A new holistic approach in new commercial product development efforts where the cross-functional team collaborating to develop a new product is compared to rugby, where the whole team tries to go the distance as a unit, is known as _____.

_____

46. A(n) _____ is defined as a piece of a product that delivers some useful functionality to a customer.

_____

47. A(n) _____ is a person who acts on behalf of customers/end users to represent their interests.

_____

48. Using Scrum methodology, a(n) _____ is typically made up of five to nine people with cross-functional skill sets.

_____

49. Scrum uses a series of coordinated _____ to manage the development process.

_____

50. The customer's prioritized list of key features desired when the project is completed is the _____ backlog.

_____

51. The _____ backlog is developed and controlled by the team. It represents the amount of work the team commits to complete during the next sprint.

_____

52. In response to the financial concerns associated with agile project management, many organizations establish _____, which is the maximum budget that should not be exceeded in the development of a given product or service.

_____

53. Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called _____.

_____

54. Agile methods appear to work best on _____ projects that require only five to nine dedicated team members to complete the work.

_____

55. The meeting meant to reflect on how well the previous sprint went and identify specific actions that can improve future sprints is called a sprint _____ meeting.

_____

56. Traditional approaches to project management concentrate firmly on thorough planning up front.

    True    False

57. In agile project management, projects evolve rather than are executed.

    True    False

58. Traditional project management requires a fairly high degree of predictability to be effective.

    True    False

59. Project difficulty varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

    True    False

60. When the project scope and/or technology are not fully known, things become much less predictable.

    True    False

61. Agile project management is ideal for exploratory projects in which requirements need to be discovered and new technology tested.

    True    False

62. Fixed scope is part of the agile project management model.

    True    False

63. Freezing the design as late as possible is a common characteristic of the agile project management model.

    True    False

64. Owners have the option to change features and priorities at the end of each sprint if desired. However, no changes should be made once a sprint has started.

    True    False

65. In Scrum methodology, it is important to make sure roles and titles are clear when developing a team.

    True    False

66. The Scrum master is not the leader of the team but acts as a buffer between the team and outside interferences.

    True    False

67. Each new iteration replaces the work of the previous iterations and adds new capabilities to the evolving to produce a next expanded version of the product.

    True    False

68. Scrum does not use any of the conventional project management tools like Gantt charts or network diagrams.

    True    False

69. Specific features are created using Scrum methodology according to four distinct phases: analysis, design, monitor, and test.

    True    False

70. The purpose of release planning is to establish the goals and a general WBS for the project.

    True    False

71. Agile project management does not satisfy top management's need for budget, scope, and schedule control.

    True    False

72. Securing the cooperation of customers to devote the necessary time to support agile project management is a common source of frustration in the field.

    True    False

73. A sprint burndown chart is used to monitor progress toward completion of the project.

    True    False

74. Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called staging.

    True    False

75. Continuous improvement is a principle found in most agile project management methods. It is demonstrated when teams reflect, learn, and adapt to change; work updates the plan.

    True    False

76. A disadvantage of an iterative development process used in agile project management is that it is difficult to detect defects and problems early.

   True    False

77. The goal of each sprint is to produce fully functional features.

   True    False

78. The third phase of the Scrum development process is to build the feature so that it is functional.

   True    False

79. The product owner has the option to change features and priorities at the end of each sprint if desired.

   True    False

80. Agile methods appear to work best on small projects that require only five to nine dedicated team members to complete the work.

   True    False

81. Why is the traditional project management approach less effective when project scope and technology are not well known?

82. Identify and describe three principles found in most agile project management methods.

83. Compare and contrast traditional approaches to project management and agile approaches to project management.

84. Briefly describe the roles of the product owner, the development team, and the Scrum master.

85. Identify and describe the phases included in the Scrum development process.

86. Identify and describe two limits or concerns associated with agile project management.

# Chapter 17 Key

1.    Traditional approaches to project management concentrate firmly on


      **A.** Thorough planning up front.
      B. New technology.
      C. Flexibility.
      D. Change.
      E. Iterative development.

      Traditional approaches to project management concentrate firmly on thorough planning up front. The rationale is that if you plan, execute your plan, and take corrective action on deviations from plan, you have a high probability of success.

*AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Larson - Chapter 17 #1
Learning Objective: Traditional versus Agile Methods
Level of Difficulty: 1 Easy*

2.    Using traditional approaches to project management, once the project scope has been firmly established, every detail of the project is defined through the _____.


      A. Deliverables
      B. Job tickets
      **C.** WBS
      D. Estimates
      E. Risks

      Once the project scope has been firmly established, every detail of the project is defined through the WBS.

*AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Larson - Chapter 17 #2
Learning Objective: Traditional versus Agile Methods
Level of Difficulty: 1 Easy*

3.  Project _____ varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

    A. Stability
    B. Balance
    C. Unity
    **D.** Uncertainty
    E. Degree

    Project uncertainty varies according to the extent the project scope is known and stable and the technology to be used is known and proven. When the project scope and/or technology are not fully known, things become much less predictable.

4.  In many cases, _____ only begin to understand what they actually desire when they are provided with someone's impression of what they want.

    A. Project managers
    **B.** Customers
    C. Sponsors
    D. Team leaders
    E. All of the above are correct

    In many cases, customers only begin to understand what they actually desire when they are provided with someone's impression of what they want. Under these conditions it would be difficult if not futile to develop a detailed list of scope requirements at project launch.

5.     When determining project uncertainty, _____ can be a source of unpredictability.


       **A.** Technology
       B. Clients
       C. Vendors
       D. Sponsors
       E. WBS

       Technology can be a source of unpredictability. For example, a development team charged with designing the next generation electric car may know they are to build a car that seats four adults comfortably and travels over 200 miles before being charged, but they may not know if the battery technology exists to power such a vehicle. Again it would be very difficult to develop a reliable schedule when such questions exist.

6.     When considering traditional versus agile project management, all of the following are part of the traditional project management model EXCEPT


       A. Fixed scope.
       B. Deliverables.
       **C.** Continuous design.
       D. Low uncertainty.
       E. Conventional project teams.

       Traditional project management includes design up front, a fixed scope, deliverables, the need to freeze the design as soon as possible, low uncertainty, resistance to change, low customer interaction and conventional project teams.

7. When considering traditional versus agile project management, all of the following are part of the agile project management model EXCEPT

A. Flexibility.
B. High uncertainty.
C. Embrace change.
**D.** Design up front.
E. Self-organized project teams.

Agile project management includes continuous design, a flexible scope, features instead of deliverables, the design is frozen as late as possible, high uncertainty, change is embraced, high customer interaction, and self-organized project teams.

8. _____ represents a fundamental shift away from the traditional plan-driven project management approach by adopting a more experimental and adaptive approach to managing projects.

**A.** Agile project management
B. Hybrid project management
C. Uncertain project management
D. Focused project management
E. Interactive project management

Agile project management represents a fundamental shift away from the traditional plan-driven project management approach by adopting a more experimental and adaptive approach to managing projects. The final project design is not known in great detail and is continuously developed through a series of incremental iterations over time.

9.    Iterations are short time frames (time boxes) that typically last from _____.

A. 1-4 days
B. 1-2 weeks
**C.** 1-4 weeks
D. 4-7 weeks
E. 7-12 weeks

Iterations are short time frames (time boxes) that typically last from one to four weeks. The goal of each iteration is to develop a workable product that satisfies one or more desired product features to demonstrate to the customer and other key stakeholders.

10.    When considering the agile project management process, at the end of each iteration

A. Team members are released to work on other projects.
B. The Scrum master assigns daily tasks to team members.
C. Product owner determines whether or not the project is complete.
D. The Scrum master can terminate the project.
**E.** Stakeholders and customers review progress and reevaluate priorities.

At the end of each iteration, stakeholders and customers review progress and reevaluate priorities to ensure alignment with customer needs and company goals. Adjustments are made and a different iterative cycle begins. Each iteration incorporates the work of the previous iterations and adds new capabilities to the evolving product to produce the next, expanded version of the product.

11.  Scrum uses a series of coordinated meetings to manage the development process. Which of the following is held at the start of each sprint? During this meeting the product owner and development team negotiate which product backlog items the team will attempt during the next sprint.

**A.** Sprint planning meeting
B. Release planning meeting
C. Sprint review meeting
D. Daily Scrum meeting
E. Sprint retrospective meeting

The sprint planning meeting is held at the start of each sprint. The product owner is responsible for identifying which features are most important, and the team is responsible for determining what is possible within the sprint.

12.  Iterative development processes provide the following important advantages EXCEPT

A. Continuous integration of the evolving product.
B. Frequent demonstration of progress to increase the likelihood that the end product will satisfy customer needs.
C. Early detection of defects and problems.
**D.** Ease of comparing actual information against planned.
E. Constant verification and validation of the evolving product.

Iterative development processes provide the following important advantages: continuous integration, verification, and validation of the evolving product, frequent demonstration of progress, and early detection of defects and problems.

13.     Scrum relies on three key roles. A person who facilitates the Scrum process and resolves impediments at the team and organizational level is called a


**A.** Scrum master.
B. Project champion.
C. Scrum leader.
D. Product owner.
E. Production coordinator.

The Scrum master facilitates the scrum process and resolves impediments at the team and organizational level. The Scrum master is not the leader of the team but acts as a buffer between the team and outside interference. They have no formal authority. Instead, they are responsible for making sure that the Scrum process is adhered to.

14.     Specific features are created using Scrum methodology according to four distinct phases. Which of the following places these phases in the correct order?


A. Design, Build, Analysis, Test
B. Monitor, Design, Build, Test
**C.** Analysis, Design, Build, Test
D. Design, Build, Monitor, Test
E. Analysis, Design, Build, Monitor

Specific features are created according to four distinct phases: analysis, design, build, and test. The first phase is analysis and review of functional requirements that will be needed to complete the feature. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

15. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when employing business-driven prioritizations of requirements and features to satisfy customer needs?

**A.** Focus on customer value
B. Iterative and incremental delivery
C. Experimentation and adaptation
D. Self-organization
E. Continuous improvement

Focus on customer value is when agile project management principles would be described when employing business-driven prioritizations of requirements and features to satisfy customer needs.

16. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when creating a flow of value to customers by chunking project delivery into small, functioning increments?

A. Focus on customer value
**B.** Iterative and incremental delivery
C. Experimentation and adaptation
D. Self-organization
E. Continuous improvement

Iterative and incremental delivery is when agile project management principles would be described when creating a flow of value to customers by chunking project delivery into small, functioning increments.

17. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when testing assumptions early and building working prototypes to solicit customer feedback and refine product requirements?

    A. Focus on customer value
    B. Iterative and incremental delivery
    **C.** Experimentation and adaptation
    D. Self-organization
    E. Continuous improvement

    Experimentation and adaptation is when agile project management principles would be described when testing assumptions early and build working prototypes to solicit customer feedback and refine product requirements.

18. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when team members decide among themselves who should do what and what should be done?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    **D.** Self-organization
    E. Continuous improvement

    Self-organization is when agile project management team members decide among themselves who should do what and what should be done.

19. While agile project management does not consist of one set method, most methods are based on similar principles. Which of the following agile project management principles would be described when teams reflect, learn, and adapt to change, and when project work updates the plan?

    A. Focus on customer value
    B. Iterative and incremental delivery
    C. Experimentation and adaptation
    D. Self-organization
    **E.** Continuous improvement

Continuous improvement is when agile project management teams reflect, learn, and adapt to change; work informs the plan.

20. A new holistic approach in new commercial product development efforts where the cross-functional team collaborating to develop a new product is compared to rugby, where the whole team tries to go the distance as a unit is known as

    **A.** Scrum.
    B. Specific project management.
    C. Traditional project management.
    D. Prioritized WBS.
    E. Functional teams.

Scrum can be traced back to the work of Hirotaka Takeuchi and Ikujiro Nonaka, who in 1986 described a new holistic approach in new commercial product development efforts. They compare this approach of a cross-functional team collaborating to develop a new product to rugby.

21.    A _____ is defined as a piece of a product that delivers some useful functionality to a customer.

      A. Scrum
      B. Value
      C. Spirit
      **D.** Feature
      E. Priority

In place of a product WBS, Scrum uses product features as deliverables. A feature is defined as a piece of a product that delivers some useful functionality to a customer.

22.    Specific features are created using Scrum methodology according to four distinct phases. Which of the following is <u>NOT</u> one of these phases?

      A. Analysis
      **B.** Monitor
      C. Build
      D. Test
      E. Design

Specific features are created according to four distinct phases: analysis, design, build, and test.

23. Scrum relies on three key roles. A person who acts on behalf of customers to represent their interests and who is responsible for ensuring that the development team focuses their efforts on developing a project that will fulfill the business objective of the project is called a

    A. Customer service representative.
    B. Project champion.
    C. Customer liaison.
    **D.** Product owner.
    E. Production coordinator.

    A product owner acts on behalf of customers to represent their interests. They are responsible for ensuring that the development team focuses their efforts on developing a product that will fulfill the business objective of the project.

24. Which of the following is <u>NOT</u> true of a development team using Scrum methodology?

    A. The team is self-organizing
    **B.** They have the authority to change features and priorities at the end of each sprint
    C. The team is typically made up of 5 to 9 people
    D. They are responsible for achieving the commitments they make at the sprint planning and review meetings
    E. There are no designated roles or titles

    The team is responsible for delivering the product. A team is typically made up of 5 to 9 people with cross-functional skill sets. There are no designated roles or titles. The team is self-organizing in the sense that they decide both who does what and how the work is to be accomplished. Team members should be co-located so that intense face-to-face collaboration occurs. They are responsible for achieving the commitments they make at the sprint planning and sprint review meetings.

25.   Scrum uses a series of coordinated meetings to manage the development process. During which of the following is it discussed what was done since the last meeting, what will be done before the next meeting, and if anything is limiting performance?

A. Sprint planning meeting
B. Release planning meeting
C. Sprint review meeting
**D.** Daily Scrum meeting
E. Sprint retrospective meeting

The heartbeat of an agile project is the daily meetings which are commonly referred to as the Scrum. Each day at the same time and place, team members stand in a circle and take turns answering the following questions: What have you done since the last Scrum? What will you do between now and the next Scrum? What is getting in the way of your performing your work as effectively as possible?

26.   Scrum uses a series of coordinated meetings to manage the development process. During which of the following are goals and the general plan for the project established?

A. Sprint planning meeting
**B.** Release planning meeting
C. Sprint review meeting
D. Daily scrum meeting
E. Sprint retrospective meeting

The purpose of release planning meeting is to establish the goals and general plan for the project. Outcomes of this meeting include establishing highest priority product backlog, the major risks, and the overall features and functionality that the released product will contain.

27. The _____ is the customer's prioritized list of key features desired when the project is completed.

    A. Project master
    B. Spirit backlog
    C. Creative backlog
    **D.** Product backlog
    E. Project list

    The product backlog is the customer's prioritized list of key features desired when the project is completed. The product owner controls the product backlog.

28. _____ represents the amount of work the team commits to complete during the next sprint.

    **A.** Sprint backlog
    B. Product backlog
    C. Project backlog
    D. Schedule backlog
    E. Task backlog

    The sprint backlog is developed and controlled by the team. It represents the amount of work the team commits to complete during the next sprint.

29. Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. In practice this condition is called

   A. Incremental delivery.
   B. Staging.
   C. Feature collaboration.
   D. Scrum.
   **E.** Scaling.

   The chief challenge with scaling is integration—making sure that the different features being created work in harmony with each other.

30. For some agile projects, _____ are established, which is the maximum budget that should not be exceeded in the development of a given product or service.

   A. Project accounts
   B. Contingencies
   C. Agile accounts
   **D.** Ceilings
   E. Scrum logs

   In response to the financial concerns, many organizations establish ceilings, which is the maximum budget that should not be exceeded in the development of a given product or service.

31. _____ project management requires a fairly high degree of predictability to be effective.

   **Traditional**

   Traditional approaches to project management concentrate firmly on thorough planning up front. Traditional approaches also require a fairly high degree of predictability to be effective. For plans to be useful managers have to have a firm idea as to what is to be accomplished and how to do it.

32. _____ project management concentrates firmly on thorough planning up front.

**<u>Traditional</u>**

Traditional approaches to project management concentrate firmly on thorough planning up front. Traditional approaches also require a fairly high degree of predictability to be effective. For plans to be useful managers have to have a firm idea as to what is to be accomplished and how to do it.

33. Project _____ varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

**<u>uncertainty</u>**

Project uncertainty varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

34. _____ projects evolve rather than are executed.

**<u>Agile</u>**

Agile project management represents a fundamental shift away from the traditional plan-driven project management approach by adopting a more experimental and adaptive approach to managing projects. Agile projects evolve rather than are executed.

35. _____ project management involves high customer interaction.

**<u>Agile</u>**

Agile project management requires active customer involvement. The customer's involvement ensures the end result will align with the customer's needs.

36. Short time frames (time boxes) that typically last from one to four weeks are called
_____.

    **iterations or sprints**

    Iterations are short time frames that typically last from one to four weeks. The goal of each iteration is to develop a workable product that satisfies one or more desired product features to demonstrate to the customer and other key stakeholders. In Scrum methodology, iterations are called sprints.

37. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The first phase is _____ and review of functional requirements that will be needed to complete the feature.

    **analysis**

    The first phase is analysis and review of functional requirements that will be needed to complete the feature. The team commits to meet these requirements. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

38. Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The second phase is the development of a _____ that meets the requirements of the feature.

    **design**

    The first phase is analysis and review of functional requirements that will be needed to complete the feature. The team commits to meet these requirements. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

39.     Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The third phase is to _____ the feature so that it is functional.

**build**

The first phase is analysis and review of functional requirements that will be needed to complete the feature. The team commits to meet these requirements. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

40.     Using Scrum methodology, specific features are created according to four distinct phases during each sprint. The last phase includes the _____ and documentation of the feature.

**testing**

The first phase is analysis and review of functional requirements that will be needed to complete the feature. The team commits to meet these requirements. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

41.     In place of a product WBS, Scrum uses product _____ as deliverables.

**features**

Scrum, like other agile methods, begins with a high-level scope definition and ballpark time and cost estimates for the project. The scope and cost estimates should be complete enough that management is comfortable with the estimates. The theory is that since requirements evolve over time, detailed up-front planning will be wasted. In place of a product WBS, Scrum uses project features as deliverables.

42.   The _____ facilitates the Scrum process and resolves impediments at the team and organizational level.

**Scrum master**

The Scrum master facilitates the Scrum process and resolves impediments at the team and organizational level. The Scrum master is not the leader of the team but acts as a buffer between the team and outside interference.

43.   The development team is a key role when considering the Scrum process. The team is _____ in the sense that they decide among themselves who should do what and what should be done.

**self-organized**

Self-organization—team members decide among themselves who should do what and what should be done. This is an agile project management principle that is common regardless of the agile project management method used.

44.   When teams reflect, learn, and adapt to change, when their work updates the plan, they are following the agile project management principle of _____.

**continuous improvement**

Continuous improvement—teams reflect, learn, and adapt to change; work informs the plan. This is an agile project management principle that is common regardless of the agile project management method used.

45. A new holistic approach in new commercial product development efforts where the cross-functional team collaborating to develop a new product is compared to rugby, where the whole team tries to go the distance as a unit, is known as _____.

**<u>Scrum</u>**

Scrum can be traced back to the work of Hirotaka Takeuchi and Ikujiro Nonaka, who in 1986 described a new holistic approach in new commercial product development efforts.

46. A(n) _____ is defined as a piece of a product that delivers some useful functionality to a customer.

**<u>feature</u>**

A feature is defined as a piece of a product that delivers some useful functionality to a customer. The project team tackles the highest, feasible priority features first. Priorities are reevaluated after each iteration.

47. A(n) _____ is a person who acts on behalf of customers/end users to represent their interests.

**<u>product owner</u>**

A product owner acts on behalf of customers to represent their interests. The product owner is responsible for ensuring that the development team focuses their efforts on developing a product that will fulfill the business objectives of the project.

48. Using Scrum methodology, a(n) _____ is typically made up of five to nine people with cross-functional skill sets.

**<u>development team</u>**

A development team is responsible to delivering the product. It is typically made up of five to nine people with cross-functional skill sets.

49. Scrum uses a series of coordinated _____ to manage the development process.

**<u>meetings</u>**

Scrum uses a series of coordinated meetings to manage the development process. These include the sprint planning meeting, the daily Scrum meeting, the sprint review meetings and the sprint retrospective meeting.

50. The customer's prioritized list of key features desired when the project is completed is the _____ backlog.

**<u>product</u>**

The product backlog is the customer's prioritized list of key features desired when the project is completed. The product backlog usually defines each feature and estimates of time, cost, and work remaining.

51. The _____ backlog is developed and controlled by the team. It represents the amount of work the team commits to complete during the next sprint.

**<u>sprint</u>**

The sprint backlog is developed and controlled by the team. It represents the amount of work the team commits to complete during the next sprint. The sprint backlog lists the tasks that must be completed to deliver a functional feature or segment of a feature.

52.  In response to the financial concerns associated with agile project management, many organizations establish _____, which is the maximum budget that should not be exceeded in the development of a given product or service.

**<u>ceilings</u>**

In response to the financial concerns, many organizations establish ceilings, which is the maximum budget that should not be exceeded in the development of a given product or service.

53.  Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called _____.

**<u>scaling</u>**

Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called scaling. The chief challenge with scaling is integration—making sure that the different features being created work in harmony with each other.

54.  Agile methods appear to work best on _____ projects that require only five to nine dedicated team members to complete the work.

**<u>small</u>**

Agile methods appear to work best on small projects that require only five to nine dedicated team members to complete the work. Here, face-to-face communications replace time-consuming documentation and informal coordination supplants top-down control.

55. The meeting meant to reflect on how well the previous sprint went and identify specific actions that can improve future sprints is called a sprint _____ meeting.

**retrospective**

The purpose of the retrospective meeting is to reflect on how well the previous sprint went and identify specific actions that can improve future sprints. It reflects Scrum's commitment to continuous improvement and the value it places on improving not only products but team interactions.

56. Traditional approaches to project management concentrate firmly on thorough planning up front.

**TRUE**

Traditional approaches to project management concentrate firmly on thorough planning up front. The rationale is that if you plan, execute your plan, and take corrective action on deviations from the plan, you have a high probability of success.

57. In agile project management, projects evolve rather than are executed.

**TRUE**

Agile project management represents a fundamental shift away from the traditional plan-driven project management approach by adopting a more experimental and adaptive approach to managing projects. Projects evolve rather than are executed.

58.  Traditional project management requires a fairly high degree of predictability to be effective.

**TRUE**

Traditional project management requires a fairly high degree of predictability to be effective. Traditional project management techniques were developed to operate in the predictable zone where the scope of the project is fairly well defined and technology to be used is established.

59.  Project difficulty varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

**FALSE**

Project uncertainty varies according to the extent the project scope is known and stable and the technology to be used is known and proven.

60.  When the project scope and/or technology are not fully known, things become much less predictable.

**TRUE**

When the project scope and/or technology are not fully known, things become much less predictable. Traditional project management techniques were developed to operate in the predictable zone where the scope of the project is fairly well defined and technology to be used is established. Agile lives in the unpredictable zone.

61.	Agile project management is ideal for exploratory projects in which requirements need to be discovered and new technology tested.

**TRUE**

Agile project management is ideal for exploratory projects in which requirements need to be discovered and new technology tested. It focuses on active collaboration between the project team and customer representatives, breaking projects into small functional pieces, and adapting to changing requirements.

62.	Fixed scope is part of the agile project management model.

**FALSE**

Traditional project management techniques were developed to operate in the predictable zone where the scope of the project is fairly well defined. When using agile project management the scope is flexible.

63.	Freezing the design as late as possible is a common characteristic of the agile project management model.

**TRUE**

Freezing the design as late as possible is a common characteristic of the agile project management model, while in the traditional project management model the design is frozen as early as possible.

64.	Owners have the option to change features and priorities at the end of each sprint if desired. However, no changes should be made once a sprint has started.

**TRUE**

At the start of each sprint, the product owner and development team negotiate which product backlog items the team will attempt this sprint. Once the sprint planning meeting has been adjourned, the goals for the sprint cannot be changed.

65.	In Scrum methodology, it is important to make sure roles and titles are clear when developing a team.

**FALSE**

There are no designated roles or titles within the Scrum development team. People take on different responsibilities depending on the nature of the work. The team is self-organizing in the sense they decide both who does what and how the work is to be accomplished.

66.	The Scrum master is not the leader of the team but acts as a buffer between the team and outside interferences.

**TRUE**

The Scrum master (aka project manager) is not the leader of the team (the team leads itself!) but acts as a buffer between the team and outside interferences. They have no formal authority.

67. Each new iteration replaces the work of the previous iterations and adds new capabilities to the evolving to produce a next expanded version of the product.

**FALSE**

At the end of each iteration, stakeholders and customers review progress and reevaluate priorities to ensure alignment with customer needs and company goals. Adjustments are made and a different iterative cycle begins. Each new iteration includes the work of the previous iterations and adds new capabilities to the evolving to produce a next expanded version of the product.

68. Scrum does not use any of the conventional project management tools like Gantt charts or network diagrams.

**TRUE**

Scrum does not use any of the conventional project management tools like Gantt charts or network diagrams. Instead it relies on the daily Scrums and the active involvement of the product owner to manage work flow.

69. Specific features are created using Scrum methodology according to four distinct phases: analysis, design, monitor, and test.

**FALSE**

Specific features are created using Scrum methodology according to four distinct phases: analysis, design, build, and test. The first phase is analysis and review of functional requirements that will be needed to complete the feature. The team commits to meet these requirements. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

70.    The purpose of release planning is to establish the goals and a general WBS for the project.

**FALSE**

The purpose of the release planning is to establish the goals and general plan for the project. In place of a product WBS (used in traditional project management), Scrum uses product features as deliverables.

71.    Agile project management does not satisfy top management's need for budget, scope, and schedule control.

**TRUE**

While ballpark estimates are provided, agile methods by their nature do not provide the detailed estimates of time and cost that management likes.

72.    Securing the cooperation of customers to devote the necessary time to support agile project management is a common source of frustration in the field.

**TRUE**

Agile requires active customer involvement. Soliciting the active participation of external customers can be problematic. Even though there is consistent evidence that customer participation enhances project success, not all customers want to be that actively involved. Many are simply too busy. Others believe that they hired the project team so they would not have to be involved.

73. A sprint burndown chart is used to monitor progress toward completion of the project.

   **FALSE**

   A sprint burndown chart is used to track progress on a daily basis. The release burndown chart is used to monitor progress toward completion of the project.

74. Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called staging.

   **FALSE**

   Agile methods can be used on larger scale projects in which several teams are working on different features at the same time. This is called scaling. Significant up-front planning is required to manage the interdependencies of different features that will be developed. This is called staging.

75. Continuous improvement is a principle found in most agile project management methods. It is demonstrated when teams reflect, learn, and adapt to change; work updates the plan.

   **TRUE**

   Continuous improvement is a core principle in agile project management. Teams reflect, learn, and adapt to change. Work updates the plan.

76. A disadvantage of an iterative development process used in agile project management is that it is difficult to detect defects and problems early.

   **FALSE**

   Early detection of defects and problems is an advantage of an iterative development process.

77.   The goal of each sprint is to produce fully functional features.

**<u>TRUE</u>**

The goal of each sprint is to produce fully functional features. This forces the team to tackle tough decisions early in order to create a workable demo.

78.   The third phase of the Scrum development process is to build the feature so that it is functional.

**<u>TRUE</u>**

Specific features are created according to four distinct phases: analysis, design, build, and test. The first phase is analysis and review of functional requirements that will be needed to complete the feature. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

79.   The product owner has the option to change features and priorities at the end of each sprint if desired.

**<u>TRUE</u>**

The product owner has the option to change features and priorities at the end of each sprint if desired. However, no changes should be made once a sprint has started.

80. Agile methods appear to work best on small projects that require only five to nine dedicated team members to complete the work.

**TRUE**

Agile methods appear to work best on small projects that require only five to nine dedicated team members to complete the work. Here face-to-face communication replaces time-consuming documentation and informal coordination supplants top-down control.

81. Why is the traditional project management approach less effective when project scope and technology are not well known?

Answer will vary

Feedback: When working on projects in which the end product is not well defined, flexibility and the ability to manage changes as more information and learning takes place is critical. Traditional approaches to project management concentrate firmly on thorough planning up front. Project uncertainty varies according to the extent the project scope is known and stable and the technology to be used is known and proven. The higher the uncertainty the more appropriate agile project management.

82. Identify and describe three principles found in most agile project management methods.

Answer will vary

Feedback: (1) Focus on customer value—employ business-driven prioritizations of requirements and features; (2) Iterative and incremental delivery—create a flow of value to customers by chunking project delivery into small, functioning increments; (3) Experimentation and adaptation—test assumptions early and build working prototypes to solicit customer feedback and refine product requirements; (4) Self-organization—team members decide among themselves who does what and what should be done; (5) Continuous improvement—teams reflect, learn, and adapt to change; work informs the plan.

83.    Compare and contrast traditional approaches to project management and agile approaches to project management.

Answer will vary

Feedback: Traditional project management includes design up front, a fixed scope, deliverables, the need to freeze the design as soon as possible, low uncertainty, resisting change, low customer interaction and conventional project teams. Agile project management includes continuous design, a flexible scope, features instead of deliverables, the design is frozen as late as possible, high uncertainty is embraced, high customer interaction is desired, and project teams are self-organized.

*AACSB: Reflective Thinking*
*Blooms: Understand*
*Larson - Chapter 17 #83*
*Learning Objective: Agile PM*
*Level of Difficulty: 2 Medium*

84.    Briefly describe the roles of the product owner, the development team, and the Scrum master.

Answer will vary

Feedback: The product owner acts on behalf of customers/end users to represent their interests. He or she is also responsible for ensuring that the development team focuses their efforts on developing a product that will fulfill the business objective of the project. The development team is responsible for delivering the product. The Scrum master facilitates the Scrum process and resolves impediments at the team and organization level. The Scrum master is not the leader of the team but acts as a buffer between the team and outside interference.

*AACSB: Reflective Thinking*
*Blooms: Understand*
*Larson - Chapter 17 #84*
*Learning Objective: Agile PM in Action: Scrum*
*Level of Difficulty: 3 Hard*

85.   Identify and describe the phases included in the Scrum development process.

Answer will vary

Feedback: Specific features are created according to four distinct phases: analysis, design, build, and test. The first phase is analysis and review of functional requirements that will be needed to complete the feature. The second phase is the development of a design that meets the requirements of the feature. The third phase is to build the feature so that it is functional. Finally, the feature is tested and documented.

86.   Identify and describe two limits or concerns associated with agile project management.

Answer will vary

Feedback: (1) Agile project management doesn't satisfy top management's need for budget, scope and schedule control. (2) Many of the agile principles, including self-organizing teams and intense collaboration, are incompatible with corporate cultures. (3) Agile requires active customer involvement.

# Chapter 17 Summary

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