

TEST BANK

DENNIS | WIXOM | ROTH

SYSTEMS ANALYSIS & DESIGN



6TH EDITION

WILEY

Multiple Choice

1. A critical success factor in project management is to:
 - a) Say “no” to all requests as they add to ‘scope creep’
 - b) Use throwaway prototyping
 - c) Use a CASE tool to delineate requirements from work tasks
 - d) Start with a realistic assessment of the work that needs to be done
 - e) Hire an outside project management consulting group

Ans: d

Response: Introduction

Difficulty: easy

2. Which is a true statement about IT projects?
 - a) Most IS departments face a demand for IT projects that far exceed the ability to do them.
 - b) Project Managers must be certified as PMP (Project Management Professionals)
 - c) Project estimates tend to have a built-in buffer of time
 - d) Project teams of 12 to 15 are generally considered optimum
 - e) The majority of projects taken on by IT departments are not strategic to the business

Ans: a

Response: Introduction

Difficulty: hard

3. Which is NOT suggested for IT development projects?
 - a) Projects need to be prioritized
 - b) Projects need to be carefully selected
 - c) Projects need to be carefully managed
 - d) Projects need to give a positive return on investment within four years
 - e) Projects need to give value to the business

Ans: d

Response: Introduction

Difficulty: medium

4. Which would generally NOT be taken into consideration for project portfolio management in an organization?
 - a) The number of large projects
 - b) The number of tactical projects
 - c) The number of high risk projects
 - d) The number of strategic projects
 - e) The number of financially feasible projects

Ans: e

Response: Project Selection

Difficulty: medium

5. The V-model pays more explicit attention to _____:
- a) Iteration
 - b) Return on investment (ROI)
 - c) Business Value (the “V”)
 - d) Testing
 - e) Prototyping

Ans: d

Response: Project Methodology Options

Difficulty: medium

6. RAD is an acronym for:
- a) Real Application Development
 - b) Rapid Application Design
 - c) Rapid Authentic Development
 - d) Real Autonomous Development
 - e) Rapid Application Development

Ans: e

Response: Project Methodology Options

Difficulty: medium

7. Which of the following might result in version 1; version 2 (etc.) of a system?
- a) System Prototyping
 - b) Waterfall Development
 - c) Iterative Development
 - d) System Prototyping
 - e) Parallel Development

Ans: c

Response: Rapid Application Development

Difficulty: easy

8. System prototyping is BEST characterized as:
- a) A ‘Quick and Dirty’ system
 - b) A series of versions
 - c) A method for exploring design alternatives
 - d) A method for stressing customer satisfaction
 - e) More explicit testing

Ans: a

Response: Rapid Application Development

Difficulty: easy

9. Throwaway prototyping is BEST characterized as:

- a) A 'Quick and Dirty' system
- b) A series of versions
- c) A method for exploring design alternatives
- d) A method for stressing customer satisfaction
- e) More explicit testing

Ans: c

Response: Rapid Application Development

Difficulty: easy

10. Parallel methodology is BEST characterized as:

- a) A 'Quick and Dirty' system
- b) A series of versions
- c) A method for exploring design alternatives
- d) A method for stressing customer satisfaction
- e) More explicit testing

Ans: b

Response: Parallel

Difficulty: easy

11. Extreme Programming (XP) is BEST characterized as:

- a) A 'Quick and Dirty' system
- b) A series of versions
- c) A method for exploring design alternatives
- d) A method for stressing customer satisfaction
- e) More explicit testing

Ans: d

Response: Rapid Application Development

Difficulty: easy

12. What the MAIN difference between systems prototyping and throwaway prototyping?

- a) Systems prototyping involves users while throwaway prototyping does not
- b) Throwaway prototyping involves users while systems prototyping does not
- c) Systems prototyping is a rapid application development methodology; while throwaway prototyping is not
- d) Systems prototyping works with users to quickly develop a simplified working version of the proposed system; while throwaway prototyping focuses more on exploring design alternatives

- e) Throwaway prototyping develops systems that will be use as ‘stop-gap’ systems – and generally for less than six months; while systems prototyping results in systems that will be used extensively for several years.

Ans: d

Response: see Rapid Application Development

Difficulty: easy

13. Which of the following methodologies *might* be most appropriate if you have a system project with: clear requirements; very familiar technologies; not all that complex; reasonably reliable; a very long time schedule and the schedule visibility is not important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: a

Response: see figure 2-9

Difficulty: hard

14. Which of the following methodologies *might* be most appropriate if you have a system project with: unclear user requirements; unfamiliar technologies; somewhat complex; needs to be reliable; time is not an issue and the schedule visibility is somewhat important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: e

Response: see figure 2-9

Difficulty: medium

15. Which of the following methodologies *might* be most appropriate if you have a system project with: clear requirements; very familiar technologies; not all that complex; reasonably reliable; a short time schedule and the schedule visibility is not important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: b

Response: see figure 2-9

Difficulty: hard

16. Which of the following methodologies *might* be most appropriate if you have a system project with: clear requirements; very familiar technologies; not all that complex; must be reliable; a somewhat longer schedule and the schedule visibility is not important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) V-model

Ans: e

Response: see figure 2-9

Difficulty: hard

17. Which of the following methodologies *might* be most appropriate if you have a system project with: somewhat unclear requirements; somewhat unfamiliar technologies; that is complex; reasonably reliable; a short time schedule and high schedule visibility?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: c

Response: see figure 2-9

Difficulty: hard

18. Which of the following methodologies *might* be most appropriate if you have a system project with: unclear requirements; very familiar technologies; not all that complex; reasonably reliable; a short time schedule and the schedule visibility is somewhat important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Extreme Programming

Ans: e

Response: see figure 2-9

Difficulty: hard

19. Which of the following methodologies *might* be most appropriate if you have a system project with: unclear user requirements; unfamiliar technologies; very complex; must be reliable; a short to medium time schedule and the schedule visibility is somewhat important?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: e

Response: see figure 2-9

Difficulty: hard

20. Which of the following methodologies is the historic standard, but is used less today because it takes the longest to complete all the SDLC steps?
- a) Waterfall
 - b) Parallel
 - c) Iterative
 - d) System prototyping
 - e) Throwaway prototyping

Ans: a

Response: see Project Methodology Options

Difficulty: medium

21. The main difference between the Parallel Development Methodology and the Iterative Development Methodology is that:
- a) The Parallel Development Methodology will have various releases (like version 1.0; 2.0, etc.) and the Iterative will not
 - b) The Iterative Methodology will break the system project into sub-projects for analysis, design and implementation and then merge them into a final system and the Parallel will not
 - c) The Parallel Methodology will have sub-projects and the Iterative Methodology will have various releases
 - d) The Parallel Methodology will create various models or prototypes with user involvement before setting on design concepts and the Iterative will not
 - e) The Iterative Methodology will create various models or prototypes with user involvement before setting on design concepts and the Parallel Methodology will not

Ans: c

Response: see Project Methodology Options

Difficulty: medium

22. Which of the following would BEST describe “system complexity”?

- a) The aspect of using technologies that analysts and developers are familiar with
- b) The aspect of what the business side really wants the system to do
- c) The aspect of how quickly the system can be developed and implemented
- d) The aspect of how intricate and difficult the system must be
- e) The aspect of how accurate the system must be (such as medical equipment or for games)

Ans: d

Response: See Selecting the Appropriate Development Methodology

Difficulty: medium

23. Which of the following would BEST describe “system reliability”?
- a) The aspect of using technologies that analysts and developers are familiar with
 - b) The aspect of what the business side really wants the system to do
 - c) The aspect of how quickly the system can be developed and implemented
 - d) The aspect of how complex the system must be
 - e) The aspect of how accurate the system must be (such as medical equipment or for games)

Ans: e

Response: See Selecting the Appropriate Development Methodology

Difficulty: medium

24. Bob is selecting a systems analysis and design methodology. What might be the first step?
- a) Selecting the shortest methodology
 - b) Researching the organizations standards and policies for ‘approved’ methodologies
 - c) Interviewing senior management as to their suggestions on methodologies
 - d) Do a quick ‘cost/benefit’ analysis on which methodology will provide the most benefits at the lowest cost
 - e) Do an analysis on which methodology might lessen or eliminate scope creep

Ans: b

Response: See Selecting the Appropriate Development Methodology

Difficulty: medium

25. A team of developers and customers are in close communication, with frequent communications, simplicity, feedback and courage. This would best describe:
- a) The parallel development methodology
 - b) The waterfall development methodology
 - c) The iterative development methodology
 - d) The Extreme Programming methodology
 - e) The throwaway prototyping methodology

Ans: d

Response: See Agile Development

Difficulty: medium

26. Kumar is the project manager for a revised TTP system. Which of the following most likely would NOT be considered in developing a work plan?
- a) Identifying tasks that need to be completed
 - b) Estimating the time that will be needed on tasks
 - c) Creating a dependency chart
 - d) The organizational readiness for the project
 - e) Key milestones that need to be met

Ans: d

Response: See Developing the Work Plan

Difficulty: medium

27. Suggestions for motivation might include all of these EXCEPT:
- a) Setting realistic deadlines
 - b) Giving all team members the same bonus on a project
 - c) Recognize and reward good efforts
 - d) Reward those with outstanding quality and effort
 - e) Having a good working environment

Ans: b

Response: see Staffing the Project (and Figure 2-16)

Difficulty: easy

28. TJ is coordinating a project. Which would he probably NOT use to avoid conflicts?
- a) Encourage a competitive edge between team members
 - b) Clearly defining plans for the project
 - c) Develop a project charter
 - d) Look at other projects and priorities and see how that might impact the project
 - e) Communicate the business value to the team

Ans: a

Response: See Coordinating Project Activities

Difficulty: easy

29. The most common reason for schedule and cost overruns is _____
- a) Team conflict
 - b) Lack of communication from project manager to project team
 - c) Lack of support by sponsor and champion

- d) Scope creep
- e) Adding people to a late project

Ans: d

Response: see Managing Scope

Difficulty: easy

30. Micah is a fairly new project manager. He estimated for a project plan (on the planning phase) that the project would cost \$50,000 and take 20 weeks. According to the margin of error guidelines for well-done estimates, that could range from:
- a) \$0 and \$100,000 – and between 15 and 25 weeks
 - b) \$10,000 and \$60,000 – and between 12 and 28 weeks
 - c) \$0 and \$100,000 – and between 0 and 40 weeks
 - d) \$5,000 and \$100,000 – and between 10 and 30 weeks
 - e) \$25,000 and \$75,000 – and between 10 and 30 weeks

Ans: a

Response: see Managing and Controlling the Project (figure 2-19)

Difficulty: hard

31. The science (or art) of project management is in making _____ of size, time and cost.
- a) Benchmark comparisons
 - b) Analytical and educated estimates
 - c) Trade-offs
 - d) Maximum calculations
 - e) Minimum calculations

Ans: c

Response: see Managing and controlling the project

Difficulty: easy

32. Garrett has been told by management that his project MUST be completed on time. His best estimates are more than two weeks after the absolute deadline. Which technique could he use to get a functional system on time?
- a) Risk management
 - b) System prototyping
 - c) Benchmarking
 - d) Timeboxing
 - e) Activity elimination

Ans: d

Response: see Timeboxing

Difficulty: easy

33. Which of the following is NOT a classic planning mistake?

- a) Overly optimistic schedule
- b) Failing to monitor the schedule
- c) Failing to update the schedule
- d) Adding people to a late project
- e) Omitting key requirements

Ans: e

Response: see Avoiding classic planning mistakes (practical tip 2-1)

Difficulty: easy

Response: see CASE tools

Difficulty: easy

34. If the skills required by a project cannot be met by the available project team, which would probably NOT be a reasonable solution?

- a) Use a consultant
- b) Use a contract employee
- c) Modify the project to use skills inherent on the project team
- d) Train the project team (or some of the team) on the skills needed
- e) Mentor a team member (like sending a person to work on a similar project to acquire the necessary skills)

Ans: c

Response: see Staffing plan

Difficulty: medium

35. Interpersonal skills for a project manager might be important when:

- a) Making assignments for a project
- b) Creating a cost/benefit spreadsheet
- c) Creating the system proposal
- d) Working with a highly controversial project that may have political implications
- e) Using the V-model variation of the Waterfall Methodology.

Ans: d

Response: see Staffing Plan

Difficulty: medium

36. Which of the following is not a project characteristic that will affect the methodology selection decision?

- a) Schedule Visibility
- b) Creating a cost/benefit spreadsheet
- c) User requirements clarity
- d) Complexity of the system
- e) System Reliability

Ans: b

Response: see Project Characteristics

Difficulty: easy

37. Rapid Application Development is a collection of methodologies that include all of the following except:
- a) Iterative Development
 - b) System Prototyping
 - c) Throwaway Prototyping
 - d) V-model Methodology.

Ans: d

Response: see Rapid Application Development

Difficulty: easy

38. Agile development is a group of programming-centric methodologies that focus on:
- a) Making assignments for a project
 - b) Creating a cost/benefit spreadsheet
 - c) Creating the system proposal
 - d) Working with a highly controversial project that may have political implications
 - e) Streamlining the SDLC

Ans: e

Response: see Agile Development

Difficulty: easy

39. Extreme programming emphasizes:
- a) Customer satisfaction
 - b) teamwork
 - c) Communication as a core value
 - d) Simplicity as a core value
 - e) All of these

Ans: e

Response: see Agile Development

Difficulty: medium

40. Extreme programming requires a great deal of discipline and it is recommended for:
- a) Large development teams
 - b) Mission critical applications
 - c) Large systems
 - d) Considerable onsite user involvement
 - e) All of these

Ans: d

Response: see Agile Development
Difficulty: medium

True / False

41. PMP is People – Management – Project – the three components of successful project management.

Ans: false
Response: see Introduction
Difficulty: easy

42. CIO is an acronym for “Chief Information Officer”.

Ans: true
Response: see Introduction
Difficulty: easy

43. A critical success factor for project management is to start with a realistic assessment of the work that needs to be accomplished.

Ans: true
Response: see Introduction
Difficulty: easy

44. Investments in information systems projects today are evaluated in the context of an entire portfolio of projects.

Ans: true
Response: see Project Selection
Difficulty: easy

45. In most IT departments, the demand for IT projects is generally about the same as the department’s ability to supply them.

Ans: false
Response: see Introduction
Difficulty: easy

46. The corporate IT department carefully needs to prioritize, select and manage a portfolio of projects.

Ans: true

Response: see Introduction

Difficulty: easy

47. Projects can be classified by: size, cost, purpose, length, programming language and hardware platform.

Ans: false

Response: see Project Selection

Difficulty: medium

48. The project methodology that takes the longest to complete is the Waterfall Development Methodology.

Ans: true

Response: see Project Methodology Options

Difficulty: easy

49. The project methodology that takes the longest to complete is Extreme Programming Methodology.

Ans: false

Response: see Project Methodology Options

Difficulty: easy

50. The Waterfall Methodology breaks the overall project into a series of release versions.

Ans: false

Response: see Project Methodology Options

Difficulty: easy

51. The Iterative approach of the RAD methodology breaks the overall project into a series of release versions.

Ans: true

Response: see Project Methodology Options

Difficulty: easy

52. The Throwaway Prototyping methodology is especially good for exploring design alternatives.

Ans: true

Response: see Project Methodology Options

Difficulty: easy

53. The Throwaway Prototyping methodology is good at creating release version 1.0 for users; and then the methodology shifts to system prototyping to finish the system.

Ans: false

Response: see Project Methodology Options

Difficulty: easy

54. Throwaway Prototyping balances the benefits of well-thought-out analysis and design phases with the advantages of using prototypes to refine key issues before a system is built.

Ans: true

Response: see Project Methodology Options

Difficulty: easy

55. Agile Development stresses analysis, modeling and documentation over programming.

Ans: false

Response: see Project Methodology Options

Difficulty: easy

56. Extreme Programming (XP) stresses customer satisfaction and teamwork.

Ans: true

Response: see Project Methodology Options

Difficulty: easy

57. If you had a project with very clear requirements; familiar technologies; not super complex; reliable; a very long time schedule and where the need for schedule visibility is low – the best methodology might be Extreme programming

Ans: false

Response: see Project Methodology Options

Difficulty: easy

58. Scope creep is when new requirements are added to the project after the original project scope was defined and ‘frozen’.

Ans: true

Response: see Managing Scope

Difficulty: easy

59. The margin of error in cost and time estimates can be as much as 20% in the planning phase for the system proposal deliverable.

Ans: false

Response: see Refining estimates

Difficulty: easy

60. The science (or art) of project management is setting a schedule and sticking to it no matter what – even if that includes working weekends and adding staff to reach the deadline on time.

Ans: false

Response: see Managing and Controlling the Project

Difficulty: easy

61. Wendy has been informed by the CIO that the project she is managing MUST be done by December 20th and must be fully tested and implemented by December 31st. She realizes that will mean she will have to prioritize the functionality and build the system to meet the core functions, even if that means something gets delayed until the next release of that system. She is practicing the ‘timeboxing’ approach to scope management.

Ans: true

Response: see Timeboxing

Difficulty: easy

62. A classic planning mistake mentioned in the textbook is having an ‘overly optimistic schedule’.

Ans: true

Response: see Practical Tip 2-1

Difficulty: easy

63. A classic planning mistake mentioned in the textbook is motivating employees with financial rewards instead of recognition and genuine thanks.

Ans: false

Response: see Practical Tip 2-1

Difficulty: medium

64. Nate is managing a project that is behind by one month with five months to go. He should add four to six staff persons to the project to get it back up to speed.

Ans: false

Response: see Practical Tip 2-1

Difficulty: easy

65. Using industry standards, the general estimated project time for the Implementation phase is 15%.

Ans: false

Response: see Estimating the Project Time Frame

Difficulty: easy

66. Using industry standards, the general estimated project time for the Implementation phase is 30%.

Ans: true

Response: see Estimating the Project Time Frame

Difficulty: easy

67. Using industry standards, the general estimated project time for the Planning phase is 15%.

Ans: true

Response: see Estimating the Project Time Frame

Difficulty: easy

68. Using industry standards, the general estimated project time for the Analysis phase is 20%

Ans: true

Response: see Estimating the Project Time Frame

69. Scrum, XP and Dynamic systems development method (DSDM) are all classified as ‘agile development’ concepts.

Ans: true

Response: see Agile Development

Difficulty: medium

70. Either systems prototyping or throwaway prototyping are generally a good methodology choice when the project has unclear user requirements.

Ans: true

Response: see Figure 2-9

Difficulty: easy

Essays:

71. What is the difference between systems prototyping and throwaway prototyping methodologies?

Ans: Systems prototyping generally leads to a functional system; while throwaway prototyping generally leads to understanding the user requirements and design considerations more quickly.

Response: see Rapid Application Development

Difficulty: medium

72. What are the main differences between the Waterfall Development and the Rapid Application Development methodologies?

Ans: Waterfall methodologies stress thorough use of the SDLC and can lead to longer project completion times while RAD methods generally result in shorter time to develop and implement.

Response: see Project Methodology Options

Difficulty: medium

73. What considerations do you need to make when staffing a project team?

Ans: Size (generally 8 to 10 for a team; if you need more, break into subteams); setting up a reporting structure; have people with the right technical skills; have people with interpersonal skills (especially for controversial projects); possibly hire consultants or contractors or outsource some activities; give appropriate training if needed and help with mentoring if needed.

Response: see Staffing Plan

Difficulty: medium

74. What can you do to manage scope creep?

Ans: Make it clear to users and managers that adding requirements is very difficult and make sure that requirements are all specified in advance; work hard to keep the project tight and focused; understand that there are some things that are truly required in the current project – but limit those and put other wants / needs / requirements off to the next project / next release; attempt to keep the schedule accurate – communicate the time line and the business need / business value – and that completing the project on time is also significant to the business.

Response: See Managing Scope

Difficulty: medium

75. Why is it generally a problem to add more people to a late project?

Ans: With more people, the communication complexity grows. Also, with adding people to a late project, you will have to bring them up-to-speed on the project (and that may even delay you more as they have no idea of what has (and has not) been accomplished so far). Where you had

a project that had a structure, now you are making it unstructured and harder to manage and keep on task and on time!!

Response: See staffing plan

Difficulty: medium