Project Management Professional Study Guide Exam PMI PMP



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Introduction

This book was designed for anyone thinking of taking the Project Management Professional (PMP®) exam sponsored by the Project Management Institute (PMI®). This certification is in high demand in all areas of business. PMI® has experienced explosive growth in membership over the last few years, and more and more organizations are recognizing the importance of project management certification.

Although this book is written primarily for those of you taking the PMP® exam, you can also use this book to study for the Certified Associate in Project Management (CAPM®) exam. The exams are similar in style, and the information covered in this book will help you with either exam.

This book has been updated to reflect the latest edition of A Guide to the Project Management Body of Knowledge ($PMBOK^{\mathbb{R}}$ Guide), Sixth Edition ($PMI^{\mathbb{R}}$, 2017), and the new exam domains introduced in 2020. It assumes you have knowledge of general project management practices, although not necessarily specific to the $PMBOK^{\mathbb{R}}$ Guide. It's written so that you can skim through areas you are already familiar with, picking up the specific $PMBOK^{\mathbb{R}}$ Guide terminology where needed to pass the exam. You'll find that the project management processes and techniques discussed in this book are defined in such a way that you'll recognize tasks you've always done and be able to identify them with the $PMBOK^{\mathbb{R}}$ Guide process names or methodologies.

PMI[®] offers the most recognized certification in the field of project management, and this book deals exclusively with its procedures and methods. Project management consists of many methods, each with its own terminology, tools, and procedures. If you're familiar with



another organized project management methodology, don't assume you already know the $PMBOK^{\mathbb{R}}$ Guide processes. I strongly recommend that you learn all of the processes—their key inputs, tools and techniques, and outputs. Take the time to memorize the key terms found in the Glossary as well. Sometimes just understanding the definition of a term will help you answer a question. It might be that you've always done that particular task or used the methodology described but called it by another name. Know the name of each process and its primary purpose.



What Is the PMP® Certification?

PMI[®] is the leader and the most widely recognized organization in terms of promoting project management best practices. PMI[®] strives to maintain and endorse standards and ethics in this field and offers publications, training, seminars, chapters, special interest groups, and colleges to further the project management discipline.

PMI[®] was founded in 1969 and first started offering the PMP[®] certification exam in 1984. PMI[®] is accredited as an American National Standards Institute (ANSI) standards developer and also has the distinction of being the first organization to have its certification program attain International Organization for Standardization (ISO) 9001 recognition.

PMI[®] boasts a worldwide membership of more than a half a million members with more than 200 countries and territories around the globe. Local PMI[®] chapters meet regularly and allow project managers to exchange information and learn about new tools and techniques of project management or new ways to use established techniques. I encourage you to join a local chapter and get to know other professionals in your field.

Why Become PMP® Certified?

The following benefits are associated with becoming PMP® certified:

- It demonstrates proof of professional achievement.
- It increases your marketability.
- It provides greater opportunity for advancement in your field.
- It raises customer confidence in you and in your company's services.

Demonstrates Proof of Professional Achievement

PMP® certification is a rigorous process that documents your



achievements in the field of project management. The exam tests your knowledge of the disciplined approaches, methodologies, and project management practices as described in the $PMBOK^{\textcircled{R}}$ *Guide*.

You are required to have several years of experience in project management before sitting for the exam, as well as 35 hours of formal project management education. Your certification assures employers and customers that you are well grounded in project management practices and disciplines. It shows that you have the hands-on experience and a mastery of the processes and disciplines to manage projects effectively and motivate teams to produce successful results.

Increases Your Marketability

Many industries are realizing the importance of project management and its role in the organization. They are also seeing that simply proclaiming a head technician to be a "project manager" does not make it so. Project management, just like engineering, information technology, and a host of other trades, has its own specific qualifications and skills. Certification tells potential employers that you have the skills, experience, and knowledge to drive successful projects and ultimately improve the company's bottom line.

A certification will always make you stand out above the competition. If you're a PMP® credential holder and you're competing against a project manager without certification, chances are you'll come out as the top pick. As a hiring manager, all other things being equal, I will usually opt for the candidate who has certification over the candidate who doesn't have it. Certification tells potential employers you have gone the extra mile. You've spent time studying techniques and methods as well as employing them in practice. It shows dedication to your own professional growth and enhancement and to adhering to and advancing professional standards.

Provides Opportunity for Advancement

PMP[®] certification displays your willingness to pursue growth in your professional career and shows that you're not afraid of a little hard work to get what you want. Potential employers will interpret your



pursuit of this certification as a high-energy, success-driven, can-do attitude on your part. They'll see that you're likely to display these same characteristics on the job, which will help make the company successful. Your certification displays a success-oriented, motivated attitude that will open up opportunities for future career advancements in your current field as well as in new areas you might want to explore.

Raises Customer Confidence

Just as the PMP® certification assures employers that you've got the background and experience to handle project management, it assures customers that they have a competent, experienced project manager at the helm. Certification will help your organization sell customers on your ability to manage their projects. Customers, like potential employers, want the reassurance that those working for them have the knowledge and skills necessary to carry out the duties of the position and that professionalism and personal integrity are of utmost importance. Individuals who hold these ideals will translate their ethics and professionalism to their work. This enhances the trust customers will have in you, which in turn will give you the ability to influence them on important project issues.



How to Become PMP® Certified

You need to fulfill several requirements in order to sit for the PMP[®] exam. PMI[®] has detailed the certification process quite extensively at its website. Go to www.pmi.org and click the Certifications tab to get the latest information on certification procedures and requirements.

As of this writing, you are required to fill out an application to sit for the PMP® exam. You can submit this application online at the PMI® website. You also need to document 35 hours of formal project management education. This might include college classes, seminars, workshops, and training sessions. Be prepared to list the class titles, location, date, and content.

In addition to filling out the application and documenting your formal project management training, there is one set of criteria you'll need to meet to sit for the exam. The criteria in this set fall into two categories. You need to meet the requirements for only one of these categories:

- Category 1 is for those who have a baccalaureate degree. You'll need to provide proof, via transcripts, of your degree with your application. In addition, you'll need to complete verification forms —found at the PMI® website—that show 4,500 hours of project management experience that spans a minimum of three years. You'll also need 35 hours of project management education/training.
- Category 2 is for those who do not have a baccalaureate degree but do hold a high school diploma or associate's degree. You'll need to complete verification forms documenting 7,500 hours of project management experience that spans a minimum of five years. You'll also need 35 hours of project management education/training.

As of this writing, the exam fee is \$405 for PMI[®] members in good standing and \$555 for non-PMI[®] members. Testing is conducted at Prometric testing centers. You can find a center near you on the Prometric center website, but you will not be able to schedule your

exam until your application is approved by PMI[®]. You have one year from the time PMI[®] receives and approves your completed application to take the exam. You'll need to bring two forms of identification, such as a driver's license and a credit card in your name, with you to the Prometric testing center on the test day. You will not be allowed to take anything with you into the testing room and will be provided with a locker to store your personal belongings. You will be given a calculator, pencils, and scrap paper. You will turn in all scrap paper, including the notes and squiggles you've jotted during the test, to the center upon completion of the exam.

The exam is scored immediately, so you will know whether you've passed at the conclusion of the test. You're given four hours to complete the exam, which consists of 200 randomly generated questions. Only 175 of the 200 questions are scored. Twenty-five of the 200 questions are "pretest" questions that will appear randomly throughout the exam. These 25 questions are used by PMI® to determine statistical information and to determine whether they can or should be used on future exams. You will receive a score of Proficient, Moderately Proficient, or Below Proficient for each exam domain, as well as a Pass or Fail score. Because PMI® uses psychometric analysis to determine whether you have passed the exam, a passing score is not published. The questions on the exam cover three domains with roughly half the questions involving agile or hybrid methodologies. There will also be questions regarding professional responsibility. You'll answer questions on the following domains:

- People
- Process
- Business Environment

Questions pertaining to professional responsibility on the exam will be intermixed with questions for all the process groups. You won't see a section or set of questions devoted solely to



professional responsibility, but you will need to understand all the concepts in this area. I've devoted a good portion of the last chapter of this book to discussing professional responsibility topics.

All unanswered questions are scored as wrong answers, so it benefits you to guess at an answer if you're stumped on a question.

After you've received your certification, you'll be required to earn 60 professional development units (PDUs) every three years to maintain certification. Approximately one hour of structured learning translates to one PDU. The PMI[®] website details what activities constitute a PDU, how many PDUs each activity earns, and how to register your PDUs with PMI[®] to maintain your certification. As an example, attendance at a local chapter meeting earns one PDU.



PMP[®]: Project Management Professional Exam Study Guide, 10th Edition

Updated for the 2020 Exam

Exam Objectives

PMP Exam Domains

Domain	Chapter
1. People	All Chapters
1.1 Manage conflict	10
1.2 Lead a team	1, 2, 3, 4, 5, 6, 9, 10
1.3 Support team performance	9
1.4 Empower team members and stakeholders	2, 3, 4, 8, 9, 11, 12
1.5 Ensure team members/stakeholders are adequately trained	9
1.6 Build a team	3, 4, 5, 6, 9,
1.7 Address and remove impediments, obstacles, and blockers from the team	9, 10
1.8 Negotiate project agreements	8, 10
1.9 Collaborate with stakeholders	2, 3, 4, 6, 10
1.10 Build shared understanding	3, 4, 6, 8,
1.11 Engage and support virtual teams	9
1.12 Define team ground rules	10
1.13 Mentor relevant stakeholders	3, 6
1.14 Promote team performance through the application of emotional intelligence	9
2. Process	All Chapters

2.1 Execute project with urgency required to deliver business value	3, 5, 6, 8, 9
2.2 Manage communications	1, 3, 6, 10, 11, 12
2.3 Assess and manage risks	7, 10, 11
2.4 Engage stakeholders	3, 6, 11
2.5 Plan and manage budget and resources	6, 8, 12
2.6 Plan and manage schedule	5, 12
2.7 Plan and manage quality of products/deliverables	8, 10, 11
2.8 Plan and manage scope	4, 12
2.9 Integrate project planning activities	2, 8, 11, 12
2.10 Manage project changes	11
2.11 Plan and manage procurement	2, 8, 10, 11
2.12 Manage project artifacts	5, 6, 7, 10, 11, 12
2.13 Determine appropriate project methodology/methods and practices	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
2.14 Establish project governance structure	2, 8
2.15 Manage project issues	7, 11
2.16 Ensure knowledge transfer for project continuity	12
2.17 Plan and manage project/phase closure or transitions	12
Business Environment	All Chapters
3.1 Plan and manage project compliance	2, 3, 4, 7, 11
3.2 Evaluate and deliver project benefits and value	2, 3,4, 6, 8, 11
3.3 Evaluate and address external business environment changes for impact on scope	3, 11
3.4 Support organizational change	3, 4, 5, 8, 11



Assessment Test

- 1. You work for Writer's Block, a service that reviews and critiques manuscripts for aspiring writers. You were assigned to be the project manager for a new computer system that logs, tracks, and electronically scans and files all submitted manuscripts along with the editor's notes. You hired a vendor to perform this project, and they used an agile methodology to manage the project. You are documenting how well the tailoring processes and project integration worked for this project. Which of the following information will you document regarding project integration?
 - A. You documented the project life cycle and development life cycle you used to manage the project.
 - B. You documented the management approaches used on the project.
 - C. You documented the expected benefits to ensure the intended benefits were brought about on the project.
 - D. You documented how project knowledge was managed.
 - E. B, C, D
 - F. A, B, C, D
- 2. The project sponsor has approached you with a dilemma. At the annual stockholders' meeting, the CEO announced that the project you're managing will be completed by the end of this year. The problem is that this is six months prior to the scheduled completion date. It's too late to go back and correct her mistake, and now stockholders expect implementation by the announced date. You must speed up the delivery date of this project. Your primary constraint before this occurred was the budget. Choose the best action from the options listed to speed up the project.
 - A. Hire more resources to get the work completed faster.
 - B. Ask for more money so that you can contract out one of the phases you had planned to do with in-house resources.



- C. Utilize negotiation and influencing skills to convince the project sponsor to speak with the CEO and make a correction to her announcement.
- D. Examine the project management plan to see whether there are any phases that can be fast tracked, and then revise the project management plan to reflect the compression of the schedule.
- 3. These types of dependencies can create arbitrary total float values and limit your scheduling options.
 - A. Discretionary
 - B. External
 - C. Mandatory
 - D. Hard logic
- 4. Project managers spend what percentage of their time communicating?
 - A. 90
 - B. 85
 - C. 75
 - D. 50
- 5. Match the following agile measurements with their definitions.

Agile measurements and definitions

Agile Definitions measurements

- A. Definition of 1. The time a task waits before work starts done
- B. Empirical 2. A type of in-the-moment measure measure
- C. Lead time

 3. Describes the specifics of the tasks planned for the iteration before the team begins work
- D. Definition of 4. The time it takes for a task to go from

ready request to completion

E. Response time 5. The time it takes to complete work on a task

from the time work starts

F. Cycle time 6. A checklist of elements needed to ensure the

deliverable is ready for the customer to use

G. Capacity 7. Typically expressed as deliverables,

measures functionality, or features

- 6. Your project has a high degree of certainty, firm requirements, a stable team, and low risk. Which of the following life cycle methodologies does this describe?
 - A. Flow-based agile
 - B. XP
 - C. Six Sigma DMAIC
 - D. Predictive
- 7. Which of the following statements regarding configuration management is not true?
 - A. Configuration management involves managing changes to the project baselines.
 - B. Change control systems are a subset of the configuration management system.
 - C. Configuration management focuses on the specifications of the deliverables of the project.
 - D. Configuration management validates and improves the project by evaluating the impact of each change.
- 8. Name the difference between the agile iterative approach and the agile incremental approach as discussed in the *Agile Practice Guide* (PMI[®], 2017).
 - A. Incremental uses prototypes and iterative helps in performing the work faster and in speeding up the project.
 - B. Incremental focuses on learning optimization and iterative



focuses on speed of delivery.

- C. Iterative plans the work at the beginning of the project before starting work, and incremental plans the work at the beginning of each iteration.
- D. Iterative uses prototypes and incremental helps in performing the work faster and speeding up the project.
- 9. Your project has a high degree of uncertainty, high risk, evolving requirements, and cross-functional teams. Which of the following life cycle methodologies does this describe?
 - A. Agile
 - B. Hybrid
 - C. Predictive
 - D. Waterfall
- 10. During your project meeting, a problem was discussed, and a resolution to the problem was reached. During the meeting, the participants started wondering why they thought the problem was such a big issue. Sometime after the meeting, you received an email from one of the meeting participants saying they've changed their mind about the solution reached in the meeting and need to resurface the problem. The solution reached during the initial project meeting is a result of which of the following conflict resolution techniques?
 - A. Collaborate
 - B. Forcing
 - C. Smoothing
 - D. Storming
- 11. According to the $PMBOK^{\textcircled{R}}$ *Guide*, which of the following names all the components of an interactive communication model?
 - A. Encode, transmit, decode
 - B. Encode, transmit, decode, acknowledge, feedback/response



- C. Encode, transmit, decode, feedback/response
- D. Encode, transmit, acknowledge, decode
- 12. What are benefit measurement methods?
 - A. Project selection criteria
 - B. Project selection methods
 - C. Project selection committees
 - D. Project resource and budget selection methods
- 13. During your project meeting, a problem was discussed, and the project sponsor described the resolution they wanted the project team to implement. The project manager tried to interject with another idea that might solve the issues but the sponsor didn't want to discuss the idea. Which of the following conflict resolution techniques does this question describe?
 - A. Collaborate
 - B. Forcing
 - C. Smoothing
 - D. Storming
- 14. Which of the following factors are changes that occur to the external business environment that may impact the organization and your project?
 - A. Mergers and acquisitions
 - B. Geopolitical and marketplace
 - C. Regulatory and technology
 - D. Social and economic
 - E. A, C, D
 - F. A, B, C, D
- 15. You've been assigned as a project manager on a research and development project for a new dental procedure. You're working in the Project Scope Management Knowledge Area. What is the



purpose of the scope management plan?

- A. The scope management plan describes and documents a scope baseline to help make future project decisions.
- B. The scope management plan decomposes project deliverables into smaller units of work.
- C. The scope management plan describes how project scope will be developed and how scope changes will be managed.
- D. The scope management plan describes how cost and time estimates will be developed for project scope changes.
- 16. Which of the following statements regarding Ishikawa diagrams are true?
 - A. Ishikawa diagrams are also called cause-and-effect diagrams.
 - B. Ishikawa diagrams are also called fishbone diagrams.
 - C. Ishikawa diagrams help identify the root cause of the problem.
 - D. Ishikawa diagrams are also known as why-why diagrams.
 - E. A, B, C, D
 - F. A, B, D
- 17. What is one of the most important skills a project manager can have?
 - A. Negotiation skills
 - B. Influencing skills
 - C. Communication skills
 - D. Business skills
- 18. Which of the following terms are other names for inspections?
 - A. Reviews
 - B. Assessment
 - C. Walk-through

- D. Audits
- E. A, C, D
- F. A, B, C, D
- 19. You are the project manager for Xylophone Phonics. It produces children's software programs that teach basic reading and math skills. You're performing cost estimates for your project and don't have a lot of details yet. Which of the following techniques should you use?
 - A. Analogous estimating techniques, because this is a form of expert judgment that uses historical information from similar projects
 - B. Bottom-up estimating techniques, because this is a form of expert judgment that uses historical information from similar projects
 - C. Monte Carlo analysis, because this is a modeling technique that uses simulation to determine estimates
 - D. Parametric modeling, because this is a form of simulation used to determine estimates
- 20. Project managers have the highest level of authority and the most power in which type of organizational structure?
 - A. Project-oriented
 - B. Simple
 - C. Functional
 - D. Hybrid
- 21. This process is concerned with determining the engagement levels of the stakeholders.
 - A. Plan Communications Management
 - **B.** Control Communications
 - C. Plan Stakeholder Engagement
 - D. Manage Stakeholder Engagement



- 22. All of the following statements are true regarding risk events except which one?
 - A. Project risks are uncertain events.
 - B. If risks occur, they can have a positive or negative effect on project objectives.
 - C. Unknown risks can be threats to the project objectives, and nothing can be done to plan for them.
 - D. Risks that have more perceived rewards to the organization than consequences should be accepted.
- 23. Which of the following describes the key focus or purpose of the Manage Project Knowledge process?
 - A. Gathering, creating, storing, distributing, retrieving, and disposing of project information
 - B. Managing communications, resolving issues, engaging others on the project, managing expectations, improving project performance by implementing requested changes, and managing concerns in anticipation of potential problems
 - C. Sharing organizational and project knowledge and creating new knowledge that can be shared in the future
 - D. Performing systematic activities to determine which processes should be used to achieve the project requirements, and to ensure that activities and processes are performed efficiently and effectively
- 24. You are the project manager for Xylophone Phonics. This company produces children's software programs that teach basic reading and math skills. You are ready to assign project roles, responsibilities, and reporting relationships. On which project Planning process are you working?
 - A. Estimate Activity Resources
 - B. Plan Resource Management
 - C. Acquire Project Team



- D. Plan Organizational Resources
- 25. Match the following types of tests that are used on agile-based software projects to their description.

Testing at all levels

Name of Description test

- A. 1. Testing the software from the start to the end to Integration ensure the application is working correctly. test
- B. End-to- 2. A high-level test designed to identify simple end test failures that could jeopardize the software program.
- C. 3. This test is performed after changes are made to Regression the code or when maintenance activities are test performed on the hardware the code resides on to ensure the software works the same way it did before the change.
- D. Unit 4. This test combines software modules and tests test them as a group.
- E. Smoke 5. This test is performed on individual modules or test individual components of source code.
- 26. These types of meetings are associated with the agile project management methodologies. They occur at the beginning of an iteration. Team members choose items from the backlog list to work on during the iteration. What is this meeting called?
 - A. Review planning meeting
 - B. Planning meeting
 - C. Retrospective planning meeting
 - D. Daily stand-up planning meeting
- 27. These diagrams rank-order factors for corrective action by frequency of occurrence. They are also a type of histogram.
 - A. Control charts



- B. Process flowcharts
- C. Scatter diagrams
- D. Pareto diagrams
- 28. You are a project manager who has recently held a project team kickoff meeting where all the team members were formally introduced to each other. Some of the team members know each other from other projects and have been working with you for the past three weeks. Which of the following statements is not true?
 - A. Team building improves the knowledge and skills of team members.
 - B. Team building builds feelings of trust and agreement among team members, which can improve morale.
 - C. Team building can create a dynamic environment and cohesive culture to improve productivity of both the team and the project.
 - D. Team building occurs throughout the life of the project and can establish clear expectations and behaviors for project team members, leading to increased productivity.
- 29. You are a project manager for the Swirling Seas Cruises food division. You're considering two different projects regarding food services on the cruise lines. The initial cost of Project Fish'n for Chips will be \$800,000, with expected cash inflows of \$300,000 per quarter. Project Picnic's payback period is six months. Which project should you recommend?
 - A. Project Fish'n for Chips, because its payback period is two months shorter than Project Picnic's
 - B. Project Fish'n for Chips, because the costs on Project Picnic are unknown
 - C. Project Picnic, because Project Fish'n for Chips's payback period is four months longer than Project Picnic's
 - D. Project Picnic, because Project Fish'n for Chips's payback period is two months longer than Project Picnic's



- 30. Which of the following compression techniques increases risk?
 - A. Crashing
 - B. Resource leveling
 - C. Fast-tracking
 - D. Lead and lag
- 31. You are the project manager for a construction company that is building a new city and county office building in your city. You recently looked over the construction site to determine whether the work to date conformed to the requirements and quality standards. Which tool and technique of the Control Quality process were you using?
 - A. Defect repair review
 - B. Inspection
 - C. Sampling
 - D. Quality audit
- 32. You have been assigned to a project that will allow job seekers to fill out applications and submit them via the company website. You report to the VP of human resources. You are also responsible for screening applications for the information technology division and setting up interviews. The project coordinator has asked for the latest version of your changes to the online application page for his review. Which organizational structure do you work in?
 - A. Functional organization
 - B. Weak matrix organization
 - C. Virtual organization
 - D. Balanced matrix organization
- 33. The primary function of the Closing processes is to perform all of the following except which one?
 - A. Formalize lessons learned and distribute this information to project participants.



- B. Complete all activities associated with closing out the project.
- C. Validate that the deliverables are complete and accurate.
- D. Ensure all project work is complete and accurate.
- 34. You are the project manager for Lucky Stars Candies. You've identified the requirements for the project and documented them where?
 - A. In the requirements documentation, which will be used as an input to the Create WBS process
 - B. In the project scope statement, which is used as an input to the Create WBS process
 - C. In the product requirements document, which is an output of the Define Scope process
 - D. In the project specifications document, which is an output of the Define Scope process
- 35. What is the purpose of the project charter?
 - A. To recognize and acknowledge the project sponsor
 - B. To recognize and acknowledge the existence of the project and commit organizational resources to the project
 - C. To acknowledge the existence of the project team, project manager, and project sponsor
 - D. To describe the selection methods used to choose this project over its competitors
- 36. Which of the following are tools and techniques of the Identify Stakeholders process you can use to categorize stakeholders? (Choose two.)
 - A. Salience model
 - B. Power/interest grid
 - C. Stakeholder register
 - D. Stakeholder engagement assessment

- 37. You are a project manager working on a software development project. You've developed the risk management plan, identified risks, and determined risk responses for the risks. A risk event occurs, and you implement the response. Then, another risk event occurs as a result of the response you implemented. What type of risk is this?
 - A. Trigger risk
 - B. Residual risk
 - C. Secondary risk
 - D. Mitigated risk
- 38. All of the following are a type of project ending except for which one?
 - A. Extinction
 - B. Starvation
 - C. Desertion
 - D. Addition
- 39. You are working on a project that will upgrade the phone system in your customer service center. You have considered using analogous estimating, parametric estimating, bottom-up estimating, and three-point estimating to determine activity costs. Which process does this describe?
 - A. Estimating Activity Resources
 - **B.** Estimate Costs
 - C. Determine Budget
 - D. Estimating Activity Costs
- 40. Failure costs are also known as which of the following?
 - A. Internal costs
 - B. Cost of poor quality
 - C. Cost of keeping defects out of the hands of customers



- D. Prevention costs
- 41. Feeding buffers and the project buffer are part of which of the following Develop Schedule tool and technique?
 - A. Critical path method
 - B. Schedule network analysis
 - C. Applying leads and lags
 - D. Critical chain method
- 42. You are the project manager for a construction company that is building a new city and county office building in your city. Your CCB recently approved a scope change. You know that scope change might come about as a result of all of the following except which one?
 - A. Schedule revisions
 - B. Product scope change
 - C. Changes to the agreed-on WBS
 - D. Changes to the project requirements
- 43. You are working on a project that will upgrade the phone system in your customer service center. You have used bottom-up estimating techniques to assign costs to the project activities and have determined the cost baseline. Which of the following statements is true?
 - A. You have completed the Estimate Cost process and now need to complete the Determine Budget process to develop the project's cost baseline.
 - B. You have completed the Estimate Cost process and established a cost baseline to measure future projects against.
 - C. You have completed the Determine Budget process and now need to complete the Schedule Development process to establish a project baseline to measure future project performance against.
 - D. You have completed the Determine Budget process, and the



cost baseline will be used to measure future project performance.

- 44. Each of the following options describes an element of the Develop Project Management Plan process except for which one?
 - A. Project charter
 - B. Outputs from other planning processes
 - C. Configuration management system
 - D. Organizational process assets
- 45. This type of leader leads the team in learning and maturing agile practices. They promote emotional intelligence and self-awareness, they are good listeners, put the needs of others first, help team members improve their skills, they coach and mentor, encourage safety, encourage respectful behaviors, build trust among the team, and promote the skills and intelligence of others. Which of the following leadership styles does this question describe and what are the three steps, in order, they use to help the team learn and mature agile processes? (Choose two.)
 - A. This question describes a servant leader.
 - B. This type of leader takes these steps in this order: people, purpose, and process.
 - C. This question describes a democratic leader.
 - D. This type of leader takes these three steps in this order: purpose, people, process.
- 46. Monte Carlo analysis can help predict the impact of risks on project deliverables. It is an element of one of the tools and techniques of one of the following processes. The other tools and techniques of this process include sensitivity analysis, decision tree analysis, and influence diagrams.
 - A. Plan Risk Responses
 - B. Perform Quantitative Risk Analysis
 - C. Identify Risks

- D. Perform Qualitative Risk Analysis
- 47. You know that PV = 470, AC = 430, EV = 460, EAC = 500, and BAC = 525. What is VAC?
 - A. 65
 - B. 20
 - C. 25
 - D. 30
- 48. Which of the following contracts should you use for agile projects that will be priced based on user stories?
 - A. Multitiered structure
 - B. Dynamic scope
 - C. Graduated time and materials
 - D. Fixed-price increments
- 49. Every status meeting should have time allotted for reviewing risks. Which of the following options are true?
 - A. Risk identification and monitoring should occur throughout the life of the project.
 - B. Risk audits are performed during the Monitoring and Controlling phase of the project.
 - C. Risks should be monitored for their status and to determine whether the impacts to the objectives have changed.
 - D. Technical performance measurement variances may indicate that a risk is looming and should be reviewed at status meetings.
 - E. A, C, D
 - F. A, B, C, D
- 50. Name the two types of agile approaches discussed in the *Agile Practice Guide* (PMI $^{\textcircled{R}}$, 2017).
 - A. Iteration-based and flow-based



- B. Hybrid and incremental-based
- C. Incremental-based and agile
- D. Predictive-based and release planning-based
- 51. Name the ethical code you'll be required to adhere to as a PMP[®] credential holder.
 - A. Project Management Policy and Ethics Code
 - B. PMI® Standards and Ethics Code of Conduct
 - C. Project Management Code of Professional Ethics
 - D. PMI® Code of Ethics and Professional Conduct
- 52. According to the $PMBOK^{\textcircled{R}}$ *Guide*, the project manager is identified and assigned during which process?
 - A. During the Develop Project Charter process
 - B. At the conclusion of the Develop Project Charter process
 - C. Prior to beginning the Planning processes
 - D. Prior to beginning the Define Scope process
- 53. The project manager is responsible for all of the following regarding business value except which one?
 - A. Delivering the project so business value can be realized
 - B. Work with the team to subdivide tasks into the minimum viable product whenever possible
 - C. Measuring business value
 - D. Delivering business value at the end of the project
- 54. Which of the following statements are true regarding risks?
 - A. Risks might be threats to the objectives of the project.
 - B. Risks are certain events that may be threats or opportunities to the objectives of the project.
 - C. Risks might be opportunities to the objectives of the project.



- D. Risks have causes and consequences.
- E. A, C, D
- 55. Shu Ha Ri is a technique used to develop an agile team. Which of the following are true about this model?
 - A. Shu stage means to obey or protect.
 - B. Ha stage means to separate or leave.
 - C. Ri stage means to break free or digress.
 - D. Shu Ha Ri comes from Aikido, a Japanese martial art form.
 - E. Shu Ha Ri is practiced in a progressive fashion.
 - F. A, D, E
 - G. A, B, D, E
- 56. Match the following scaling agile frameworks with their description.

Scaling agile frameworks

Framework Description

A. LeSS

1. Two or more Scrum teams work on the project together. Each Scrum team focuses on a portion of

the work.

B. SAFe 2. This consists of up to eight Scrum teams with up

to eight members each who all work on the project

together.

- C. Enterprise 3. This extends Scrum practices to all aspects of Scrum the organization.
- D. Scrum of 4. This combines several agile best practices and includes information from functional areas of the

business.

E. DA 5. This is an interactive knowledge base consisting

of technical guidance, knowledge, and information

on agile.

57. Which performance measurement tells you what the projected



total cost of the project will be at completion?

- A. ETC
- B. EV
- C. AC
- D. EAC
- 58. Which of the following statements is true regarding the Project Management Knowledge Areas?
 - A. They include Initiation, Planning, Executing, Monitoring and Controlling, and Closing.
 - B. They consist of 10 areas that bring together processes that have things in common.
 - C. They consist of five processes that bring together phases of projects that have things in common.
 - D. They include Planning, Executing, and Monitoring and Controlling processes because these three processes are commonly interlinked.
- 59. What are the Define Scope process tools and techniques?
 - A. Cost-benefit analysis, scope baseline, expert judgment, and facilitated workshops
 - B. Product analysis, alternatives generation, and expert judgment
 - C. Product analysis, alternatives analysis, expert judgment, multicriteria decision analysis, and facilitation
 - D. Alternatives generation, stakeholder analysis, and expert judgment
- 60. You are the project manager for Heartthrobs by the Numbers Dating Services. You're working on an updated website that will display pictures as well as short bios of prospective heartbreakers. You have your activity list and resource requirements in hand. You are using an adaptive methodology to manage the project. Which of the following is true?



- A. A Kanban Board is capacity based.
- B. A Scrum Board is time or velocity based.
- C. A burndown chart will show the remaining work of the sprint.
- D. All of the above.
- 61. Which performance measurement tells you the cost of the work that has been authorized and budgeted for a WBS component?
 - A. PV
 - B. EV
 - C. AC
 - D. BCWP
- 62. Your team is developing the risk management plan. Which tool and technique of this process is used to develop risk cost elements and schedule activities that will be included in the project budget and schedule?
 - A. Meetings
 - B. Data analysis
 - C. Information-gathering techniques
 - D. Risk data quality assessment
- 63. You are the project manager for Xylophone Phonics. It produces children's software programs that teach basic reading and math skills. You are performing the Plan Quality Management process and are identifying operational definitions. Which of the following does this describe?
 - A. The quality metrics
 - B. The quality management plan
 - C. The project documents update
 - D. The cost of quality
- 64. You need to convey some very complex, detailed information to



the project stakeholders. What is the best method for communicating this kind of information?

- A. Verbal
- B. Vertical
- C. Horizontal
- D. Written
- 65. You have just prepared an RFP for release. Your project involves a substantial amount of contract work detailed in the RFP. Your favorite vendor drops by and offers to give you and your spouse the use of their company condo for your upcoming vacation. It's located in a beautiful resort community that happens to be one of your favorite places to go for a getaway. What is the most appropriate response?
 - A. Thank the vendor, but decline the offer because you know this could be considered a conflict of interest.
 - B. Thank the vendor, and accept. This vendor is always offering you incentives like this, so this offer does not likely have anything to do with the recent RFP release.
 - C. Thank the vendor, accept the offer, and immediately tell your project sponsor so they're aware of what you're doing.
 - D. Thank the vendor, but decline the offer because you've already made another arrangement for this vacation. Ask them whether you can take a rain check and arrange another time to use the condo.
- 66. Directing project work on an agile project consists of several steps. Match the following steps with their descriptions.

Directing agile teamwork

Steps Description

A. 1. Review meetings are held to examine the work of the iteration and provide and receive feedback. step

- B. 2. Daily stand-ups are conducted to examine what was Second worked on yesterday, what will be worked on today, and step what obstacles are standing in the way.
- C. 3. The product backlog is defined. Third step
- D. 4. Retrospectives are held at the end of the iteration to Fourth determine what went well, what improvements can be step made to the process, and what didn't go well.
- E. 5. Planning meetings are held at the beginning of the iteration to pull user stories into the iteration backlog. step
- 67. You are a project manager for Waterways Houseboats, Inc. You've been asked to perform a cost—benefit analysis for two proposed projects. Project A costs \$2.4 million, with potential benefits of \$12 million and future operating costs of \$3 million. Project B costs \$2.8 million, with potential benefits of \$14 million and future operating costs of \$2 million. Which project should you recommend?
 - A. Project A, because the cost to implement it is cheaper than with Project B
 - B. Project A, because the potential benefits plus the future operating costs are less in value than the same calculation for Project B
 - C. Project B, because the potential benefits minus the implementation and future operating costs are greater in value than the same calculation for Project A
 - D. Project B, because the potential benefits minus the costs to implement are greater in value than the same calculation for Project A
- 68. Louis R. Pondy, a professor of business administration and author on organizational management and other topics, developed the stages of conflict. Which of the following are stages of conflict according to Pondy? (Choose three.)

- A. Collaborate
- B. Latent
- C. Avoid
- D. Felt
- E. Perceived
- 69. You are performing alternatives analysis as part of the Define Scope process. Which of the following options is not true?
 - A. Alternatives analysis is a component of the data analysis tool and technique.
 - B. Alternatives analysis is used in the Plan Scope Management process and the Define Scope process.
 - C. Alternatives analysis involves unanimity, plurality, majority, and autocratic voting methods.
 - D. Brainstorming and lateral thinking are types of alternative analysis.
- 70. The project manager has the greatest influence over quality during which process?
 - A. Plan Quality Management
 - B. Manage Quality
 - C. Control Quality
 - D. Monitor Quality
- 71. What type of organization experiences the least amount of stress during project closeout?
 - A. Project-oriented
 - B. Functional
 - C. Weak matrix
 - D. Strong matrix
- 72. You are working on the product description for your company's

new line of ski boots. Your customers have been asking for changes in style. New advances in the manufacturing process allows you to make these changes quickly and get the new line on the shelves before the next ski season. Your organization hopes to increase revenues and market share by offering this new line of boots. Which of the following are true? (Choose two.)

- A. One KPI used to measure business value might be improving the organization's business relationship with the manufacturer.
- B. The business value for this project is increasing revenues and market share.
- C. This project came about due to an organizational need to add a new style of boots and get them to market quickly.
- D. This project came about as a result of a customer request and technological advance.
- 73. The business need or demand that brought about the project, high-level scope description, analysis of the problem or opportunity the project presents, recommendation, and an evaluation statement together describe elements of which of the following?
 - A. Organizational process assets
 - B. The feasibility study
 - C. The business case
 - D. The project charter
- 74. Which of the following statements is true regarding constraints and assumptions?
 - A. Constraints restrict the actions of the project team, and assumptions are considered true for planning purposes.
 - B. Constraints are considered true for planning purposes, and assumptions limit the options of the project team.
 - C. Constraints consider vendor availability and resource



availability to be true for planning purposes. Assumptions limit the project team to work within predefined budgets or timelines.

- D. Constraints and assumptions are inputs to the Initiation process. They should be documented because they will be used throughout the project Planning process.
- 75. People are motivated by the need for achievement, power, or affiliation according to which theory?
 - A. Expectancy Theory
 - B. Achievement Theory
 - C. Contingency Theory
 - D. Theory X
- 76. You are a project manager working in a foreign country. You observe that some of your project team members are having a difficult time adjusting to the new culture. You provided them with training on cultural differences and the customs of this country before they arrived, but they still seem uncomfortable and disoriented. Which of the following statements is true?
 - A. This is the result of working with teams of people from two different countries.
 - B. This condition is known as culture shock.
 - C. This is the result of jet lag and travel fatigue.
 - D. This condition is known as global culturalism.
- 77. As a result of a face-to-face meeting you recently had to discuss the items in your issue log, you have resolved issues, managed expectations, and come away with an action plan that will improve project performance and will also require an update to the communications management plan. Which process does this describe?
 - A. Manage Stakeholder Engagement
 - **B.** Control Communications



- C. Manage Project Communications
- D. Manage Team
- 78. Which of the following are a type of agile project management methodology primarily used for information technology projects? (Choose two.)
 - A. Scrum
 - B. Six Sigma
 - C. XP
 - D. Kaizen
- 79. What is the definition of free float?
 - A. The amount of time you can delay the earliest start of a task without delaying the ending of the project
 - B. The amount of time you can delay the start of a task without delaying the earliest start of a successor task
 - C. The amount of time you can delay the latest start of a task without delaying the ending of the project
 - D. The amount of time you can delay the start of a task without delaying the earliest finish of a successor task
- 80. Generational diversity is an important component of diversity and inclusion when building your team. Which of the following are true statements about the five generations in the workplace today? (Choose two.)
 - A. Baby Boomers experienced rationing of food, gas, and other everyday items while growing up. They are often frugal and strong savers.
 - B. Millennials are also known as the "latchkey" generation.
 - C. Gen X are also known as the "MTV" generation.
 - D. Gen Z grew up with technology as a way of life and are heavily influenced by social media.
- 81. Your project involves the research and development of a new food

additive. You're ready to release the product to your customer when you discover that a minor reaction might occur in people with certain conditions. The reactions to date have been very minor, and no known long-lasting side effects have been noted. As project manager, what should you do?

- A. Do nothing because the reactions are so minor that very few people will be affected.
- B. Inform the customer that you've discovered this condition and tell them you'll research it further to determine its impacts.
- C. Inform your customer that there is no problem with the additive except for an extremely small percentage of the population and release the product to them.
- D. Tell the customer you'll correct the reaction problems in the next batch, but you'll release the first batch of product to them now to begin using.
- 82. You are a project manager working on gathering requirements and establishing estimates for the project. Which process group are you in?
 - A. Planning
 - B. Executing
 - C. Initiating
 - D. Monitoring and Controlling
- 83. According to the $PMBOK^{\textcircled{R}}$ *Guide*, which of the following names all the components of an interactive communication model?
 - A. Encode, transmit, decode
 - B. Encode, transmit, decode, acknowledge, feedback/response
 - C. Encode, transmit, decode, feedback/response
 - D. Encode, transmit, acknowledge, decode
- 84. Who is responsible for performing and managing project

integration when using an agile project management approach?

- A. Team members
- B. Product owner
- C. Scrum master
- D. Project manager
- 85. The Plan Procurement process applies evaluation criteria to bids and proposals and selects a vendor. It also uses independent estimates to compare vendor prices. This is also known as which of the following?
 - A. Independent comparisons
 - B. Analytical techniques
 - C. Should cost estimates
 - D. Expert judgment
- 86. All of the following statements are true of the project Closing process group except for which one?
 - A. Probability for success is greatest in the project Closing process group.
 - B. The project manager's influence is greatest in the project Closing process group.
 - C. The stakeholders' influence is least in the project Closing process group.
 - D. Risk occurrence is greatest in the project Closing process group.
- 87. Which of the following can you use in addition to the probability and impact matrix to prioritize risks?
 - A. Urgency
 - B. Manageability
 - C. Propinquity
 - D. Detectability



- E. PESTLE
- F. A, B, C, D
- G. A, B, C, D, E
- 88. As a PMP® credential holder, one of your responsibilities is to ensure integrity on the project. When your personal interests are put above the interests of the project or when you use your influence to cause others to make decisions in your favor without regard for the project outcome, this is considered which of the following?
 - A. Conflict of interest
 - B. Using professional knowledge inappropriately
 - C. Culturally unacceptable
 - D. Personal conflict issue



Answers to Assessment Test

- 1. F. All of the options are considered when examining whether the tailoring processes and project integration management produced the results you were expecting.
- 2. D. Fast tracking is the best answer in this scenario. Budget was the original constraint on this project, so it's unlikely the project manager would get more resources to assist with the project. The next best thing is to compress phases to shorten the project duration. For more information, please see Chapter 1.
- 3. A. Discretionary dependencies can create arbitrary total float values, and they can also limit scheduling options. For more information, please see Chapter 5.
- 4. A. Project managers spend about 90 percent of their time communicating through status meetings, team meetings, email, verbal communications, and so on. For more information, please see Chapter 10.
- 5. A-6, B-7, C-4, D-3, E-1, F-5, G-2. Agile measurements should focus on customer value. For more information, please see Chapter 12.
- 6. D. This question describes a predictive life cycle methodology. Options B, C, and D are all adaptive methodologies, which have high degrees of uncertainty, high risk, evolving requirements, and cross-functional teams. For more information, see Chapter 7.
- 7. A. Change control systems are a subset of the configuration management system. Change control systems manage changes to the deliverables and/or project baselines. For more information, please see Chapter 11.
- 8. D The iterative approach uses prototypes and mockups produced in time-bound periods such as sprints. The incremental approach produces usable deliverables at the end of the workflow, which helps in performing the work faster and speeds up the project. The incremental approach focuses on speed of

- delivery and the iterative approach focuses on learning optimization. For more information, please see <u>Chapter 6</u>.
- 9. A. This question describes an agile life cycle methodology. Hybrid life cycles have some degree of uncertainty and risk, but not at the level the question describes. Option C and D describe predictive methodologies which have high degrees of certainty, firm requirements, and stable teams.
- 10. C. The smoothing technique (also known as accommodate) does not usually result in a permanent solution. The problem is downplayed to make it seem less important than it is, which makes the problem tend to resurface later. For more information, please see Chapter 10.
- 11. B. The components of the interactive communication model are encode, transmit, decode, acknowledge, and feedback/response. The basic communication model consists of the sender, message, and receiver elements. For more information, please see Chapter 6.
- 12. B. Benefit measurement methods are project selection methods that use benefit cost ratio and other financial analysis to select projects. For more information, please see Chapter 2.
- 13. B. This question describes the forcing technique because the project sponsor insisted on implementing their solution. The forcing technique occurs when one party forces a solution on others. For more information, please see Chapter 10.
- 14. F. These factors, and others, may impact the organization and/or your project and you should continually monitor and review both the internal and external environment for changes that can impact the project. For more information, please see Chapter 11.
- 15. C. The scope management plan outlines how project scope will be managed and how scope changes will be incorporated into the project. For more information, please see Chapter 4.
- 16. E. Cause-and-effect diagrams—also called *Ishikawa*, *fishbone diagrams*, and *why-why diagrams*—show the relationship

- between the effects of problems and their causes. Kaoru Ishikawa developed cause-and-effect diagrams. For more information, please see Chapter 10.
- 17. C. Negotiation, influencing, and business skills are all important for a project manager to possess. However, good communication skills are the most important skills a project manager can have. For more information, please see Chapter 1.
- 18. E. Inspections are also called reviews, peer reviews, walkthrough, and audits. For more information, please see <u>Chapter 11</u>.
- 19. A. Analogous estimating—also called *top-down estimating*—is a form of expert judgment. Analogous estimating can be used to estimate cost or time and considers historical information from previous, similar projects. For more information, please see Chapter 5.
- 20. A. Project managers have the highest level of power and authority in a project-oriented organization. They also have high levels of power and authority in a strong matrix organization. For more information, please see Chapter 3.
- 21. C. Plan Stakeholder Engagement is concerned with determining the engagement levels of the stakeholders, understanding their needs and interests, and understanding how they might impact the project or how the project may impact them. For more information, please see Chapter 6.
- 22. C. Unknown risks might be threats or opportunities to the project, and the project manager should set aside contingency reserves to deal with them. For more information, please see Chapter 7.
- 23. C. Sharing knowledge and creating knowledge are the focus of this process. Option A describes the Manage Communications process, option B describes the Manage Stakeholder Engagement process, and option D describes the Manage Quality process. For more information, please see Chapter 10.
- 24. B. The Plan Resource Management process identifies project

- resources, documents roles and responsibilities of project team members, and documents reporting relationships. For more information, please see <u>Chapter 8</u>.
- 25. A-4, B-1, C-3, D-5, E-2. Testing at all levels is a concept used in Extreme Programming, and other agile methodologies, to expose issues and problems early in the coding process. For more information, see Chapter 9.
- 26. B. The planning meeting occurs at the beginning of an iteration or sprint. Team members choose the items from the backlog that they will work on in the upcoming sprint. For more information, please see Chapter 5.
- 27. D. Pareto diagrams rank-order important factors for corrective action by frequency of occurrence. For more information, please see Chapter 11.
- 28. D. Team building does occur throughout the life of the project, but ground rules are what establish clear expectations and behaviors for project team members. For more information, please see Chapter 9.
- 29. D. The payback period for Project Fish'n for Chips is eight months. This project will receive \$300,000 every three months, or \$100,000 per month. Project Fish'n for Chips has the shortest payback period and should be chosen over Project Picnic. For more information, please see Chapter 2.
- 30. C. Fast-tracking is a compression technique that increases risk and potentially causes rework. Fast-tracking is performing two activities previously scheduled to start one after the other in parallel. For more information, please see Chapter 5.
- 31. B. Inspection involves physically looking at, measuring, or testing results to determine whether they conform to your quality standards. For more information, please see Chapter 11.
- 32. B. Functional managers who have a lot of authority and power working with project coordinators who have minimal authority and power characterizes a weak matrix organization. Project managers in weak matrix organizations are sometimes called

- project coordinators, project leaders, or project expeditors. For more information, please see Chapter 3.
- 33. C. The deliverables are validated and accepted during the Validate Scope process. For more information, please see Chapter 12.
- 34. A. The requirements documentation contains a list of requirements for the project along with other important information regarding the requirements. For more information, please see Chapter 4.
- 35. B. The purpose of a project charter is to recognize and acknowledge the existence of a project and commit resources to the project. The charter names the project manager and project sponsor, but that's not its primary purpose. For more information, please see Chapter 2.
- 36. A, B. Identify Stakeholders tools and techniques are expert judgment, data gathering, data analysis, data representation, and meetings. The Salience model and power/interest grid are two of the data representation techniques you can use to categorize and show stakeholder information. The stakeholder register is where the information is recorded. For more information, please see Chapter 3.
- 37. C. Secondary risk events occur as a result of the implementation of a response to another risk. For more information, please see Chapter 7.
- 38. C. The four types of project endings are addition, integration, starvation, and extinction. For more information, please see Chapter 12.
- 39. B. Estimate Costs is where activity costs are estimated using some of the tools and techniques listed in the question. The remaining tools and techniques of this process are expert judgment, data analysis, project management information system, and decision-making. For more information, please see Chapter 6.
- 40. B. Failure costs are associated with the cost of quality and are

- also known as cost of poor quality. For more information, please see Chapter 8.
- 41. D. The critical chain is a resource-constrained critical path that adds duration buffers to help protect schedule slippage. For more information, please see Chapter 5.
- 42. A. Scope changes will cause schedule revisions, but schedule revisions do not change the project scope. Project requirements are part of the project scope statement; therefore, scope change might come about as a result of changes to the project requirements, as stated in option D. For more information, please see Chapter 12.
- 43. D. The Determine Budget process establishes the cost baseline, which is used to measure and track the project throughout the remaining process groups. For more information, please see Chapter 6.
- 44. C. The inputs to Develop Project Management Plan include project charter, outputs from other processes, enterprise environmental factors (EEF), and organizational process assets (OPA). The tools and techniques of this process are expert judgment, data gathering, interpersonal and team skills, and meetings. For more information, please see Chapter 4.
- 45. A, D. This question describes a servant leader. They take three steps to ensure the team learns and matures the agile process: purpose, people, process. For more information, please see Chapter 9.
- 46. B. Monte Carlo analysis is a simulation technique that is part of a simulation tool and technique performed in the Perform Quantitative Risk Analysis process. For more information, please see Chapter 7.
- 47. C. VAC is calculated this way: VAC = BAC EAC. Therefore, 525 -500 = 25. For more information, please see <u>Chapter 12</u>.
- 48. D. Fixed-price increments are contracts used on agile projects that are based on breaking down the work into user stories, rather than pricing the contract as a whole. For more

- information, please see Chapter 8.
- 49. E. Risk audits should be performed throughout the life of the project, and you are specifically interested in looking at the implementation and effectiveness of risk strategies. For more information, please see Chapter 11.
- 50. A. The two types of agile approaches discussed in the *Agile Practice Guide* (PMI[®], 2017) are iteration-based (like Scrum) and flow-based (like Kanban). For more information, please see <u>Chapter 6</u>.
- 51. D. The *PMI*[®] *Code of Ethics and Professional Conduct* is published by PMI[®], and all PMP[®] credential holders are expected to adhere to its standards. For more information, please see <u>Chapter 12</u>.
- 52. A. According to the *PMBOK*[®] *Guide*, the project manager should be assigned during the development of the project charter, which occurs in the Develop Project Charter process. For more information, please see <u>Chapter 2</u>.
- 53. D. The project manager is responsible for delivering business value incrementally throughout the project, not just at the end of the project. For more information, please see Chapter 3.
- 54. E. Risks are uncertain events that may be threats or opportunities to the objectives of the project. For more information, please see <u>Chapter 7</u>.
- 55. F. Shu Ha Ri is a technique that comes from Aikido. Shu means to obey or protect, Ha means to break free or digress, and Ri means to separate or leave. For more information, please see Chapter 9.
- 56. A-2, B-5, C-3, D-1, E-4. Scaling agile frameworks is a technique used to scale agile practices to the organization and incorporate multiple teams using agile methodologies. For more information, please see Chapter 10.
- 57. D. Estimate at completion (EAC) estimates the total cost of the

- project at completion based on the performance of the project to date. For more information, please see Chapter 12.
- 58. B. The project management Knowledge Areas bring together processes that have commonalities. For example, the Project Quality Management Knowledge Area includes the Plan Quality Management, Manage Quality, and Control Quality processes. For more information, please see Chapter 2.
- 59. C. The tools and techniques of the Define Scope process include product analysis, alternatives analysis, expert judgment, multicriteria decision analysis, and facilitation. For more information, please see Chapter 4.
- 60. D. All of the options are true in relation to an adaptive methodology. For more information, please see <u>Chapter 5</u>.
- 61. A. Planned value is the cost of work that has been authorized and budgeted for a schedule activity or WBS component. For more information, please see Chapter 12.
- 62. A. The Plan Risk Management process contains three tools and techniques: data analysis (stakeholder analysis), expert judgment, and meetings. Meetings are used to determine the plans for performing risk management activities. One of the key components of these meetings is to determine risk cost elements, along with schedule activities, and definitions of terms, and the development or definition of the probability and impact matrix. For more information, please see Chapter 7.
- 63. A. Operational definitions are quality metrics. They describe what is being measured and how it will be measured during the Control Quality process. For more information, please see Chapter 8.
- 64. D. Information that is complex and detailed is best conveyed in writing. A verbal follow-up would be good to answer questions and clarify information. Vertical and horizontal are ways of communicating within the organization. For more information, please see Chapter 10.
- 65. A. The best response is to decline the offer. This is a conflict of

- interest, and accepting the offer puts your own integrity and the contract award process in jeopardy. For more information, please see Chapter 12.
- 66. A-3, B-5, C-2, D-1, E-4. Agile projects typically follow a workflow that consists of defining the product backlog, holding planning meetings, conducting daily stand-ups, holding review meetings, and conducting retrospectives. For more information, see Chapter 9.
- 67. C. Project B's cost—benefit analysis is a \$9.2 million benefit to the company, compared to \$6.6 million for Project A. Cost—benefit analysis takes into consideration the initial costs to implement and future operating costs. For more information, please see Chapter 2.
- 68. B, D, E. Pondy identified five stages of conflict including latent, perceived, felt, manifest, and aftermath. Options A and C describe conflict resolution techniques. For more information, please see Chapter 10.
- 69. C. Option C describes voting methods that are used in the decision-making tool and technique. They are not part of alternatives analysis. For more information, please see Chapter 4.
- 70. B. Manage Quality is the process where project managers have the greatest amount of influence over quality. For more information, please see Chapter 10.
- 71. C. Weak matrix organizational structures tend to experience the least amount of stress during the project closeout processes. For more information, please see Chapter 12.
- 72. B, D. Business value brings short- or long-term benefits to the organization. Business value for this project is stated in the question as increasing revenues and market share. KPIs are usually numeric metrics used to examine whether business value was achieved. This project was requested by customers and the new manufacturing processes describe a technological advancement. Organization need usually entails projects focused

- on internal organizational needs such as upgrading a software system or finding a new building to lease. For more information, please see Chapter 3.
- 73. C. These elements are part of the business case used as an input (through the business documents input) to the Develop Project Charter process. For more information, please see Chapter 2.
- 74. A. Constraints limit the options of the project team by restricting action or dictating action. Scope, time, and cost are the three most common constraints, and each of these has an effect on quality. Assumptions are presumed to be true for planning purposes. Always validate your assumptions. For more information, please see Chapter 4.
- 75. B. Achievement Theory conjectures that people are motivated by the need for achievement, power, or affiliation. For more information, please see <u>Chapter 9</u>.
- 76. B. When people work in unfamiliar environments, culture shock can occur. Training and researching information about the country you'll be working in can help counteract this. For more information, please see Chapter 12.
- 77. A. The clues in this question are the face-to-face meetings resolving issues, managing expectations, and improving project performance, which are the primary purposes of the Manage Stakeholder Engagement process. Project management plan updates include both the communications management plan and stakeholder engagement plan and are an output of this process. For more information, please see Chapter 10.
- 78. A, C. Scrum and Extreme Programming (XP) are agile project management methodologies that are used in the information technology field. For more information, please see Chapter 1.
- 79. B. Option A describes total float. Options C and D are incorrect. For more information, please see Chapter 5.
- 80. C, D. Option A describes the Silent Generation and option B describes the Gen X generation. For more information, please see Chapter 9.

- 81. B. Honesty and truthful reporting are required of PMP[®] credential holders. In this situation, you would inform the customer of everything you know regarding the problem and work to find alternative solutions. For more information, please see Chapter 12.
- 82. A. The Planning process group is where requirements are fleshed out and estimates on project costs and time are made. For more information, please see Chapter 1.
- 83. B. The components of the interactive communication model are encode, transmit, decode, acknowledge, and feedback/response. The basic communication model consists of the sender, message, and receiver elements. For more information, please see Chapter 6.
- 84. D. The project manager is responsible for performing and managing project integration while the project team members are responsible for planning, control, and delivery of the product. For more information, please see Chapter 4.
- 85. C. Independent estimates are also known as should cost estimates. For more information, please see Chapter 8.
- 86. D. Risk occurrence is lowest during the Closing process group because you've completed the work of the project at this point. However, risk impacts are the greatest in the Closing process because you have much more at stake. For more information, please see Chapter 12.
- 87. F. PESTLE is used to assist in identifying risks. The other factors you can consider that are not listed in the options are proximity, dormancy, controllability, connectivity, and strategic impact. For more information, please see Chapter 7.
- 88. A. A conflict of interest is any situation that compromises the outcome of the project or ignores the impact to the project to benefit yourself or others. For more information, please see Chapter 12.