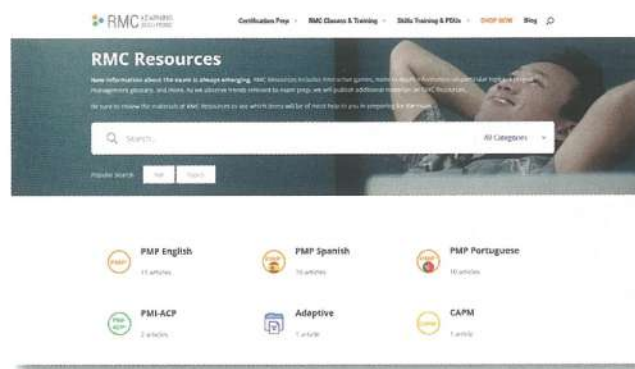


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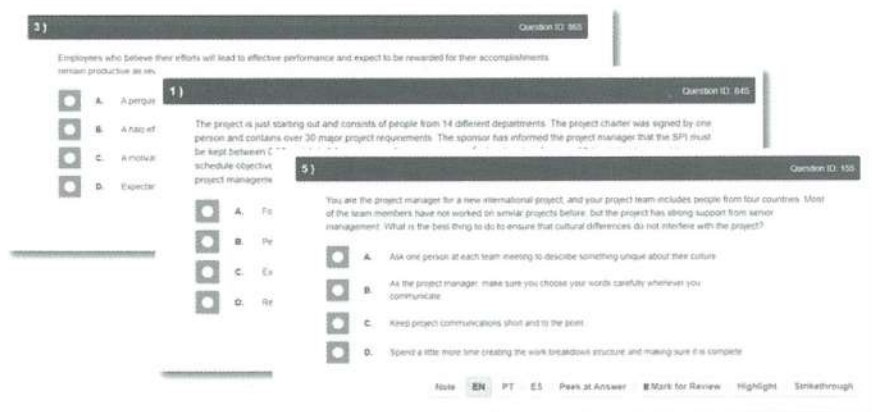
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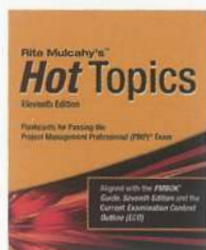
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PMP® Exam Prep

Accelerated Learning to Pass the
Project Management Professional (PMP)® Exam

By Rita Mulcahy, PMP

with Margo Kirwin, CPLP, PMP, PMI-ACP, PMI-PBA

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This and all editions of this book are dedicated to Rita Mulcahy.
Her vision made RMC the company it is today. She had a profound
influence on so many people—her readers, her students,
and, not least, her employees.
May we all apply what we learned from her and embody her passion for
improving our organizations, our communities, and our world
through effective project management.

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History of This Book

The first edition of Rita Mulcahy's *PMP® Exam Prep* was published in 1998, and at the time, it was the first and only comprehensive resource dedicated to PMP exam preparation.

As a project manager in the late 1990s—as well as one of the world's first certified PMPs—Rita was frustrated by the lack of quality PMP preparation materials available to her and her colleagues. So, combining her knowledge of accelerated learning with her extensive project management experience, Rita wrote the first draft of *PMP® Exam Prep*. Since then, the popularity of the book has grown immensely, through ten wildly successful editions. Today, the book is by far the best-selling PMP exam preparation guide in the world, with thousands of copies in circulation.

Tragically, Rita passed away on May 15, 2010. RMC continues her mission today with the eleventh edition of the *PMP® Exam Prep* book, and with a growing line of other project management-related courses and products that promote her vision of improving the world through effective project management. *PMP® Exam Prep* and its related products are used as study tools by many project managers across the globe, and in hundreds of classroom-based prep classes at universities, training companies, and corporations.

Free Updates The purchase of this book includes access to updates regarding the PMP exam, as well as additional tricks, tips, and information to help you prepare for the exam. Access this information at rmcls.com. Have this book with you when you go to the website as you'll need to verify your product purchase.

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Contact Us We love to hear your feedback. Is there anything in this book that you wish was expanded? Is there anything that we focus on too much, or is there anything not covered that you think should be here? We would love to hear from you. Send us an email at info@rmcls.com.

Introduction to the Eleventh Edition

Welcome to the eleventh edition of *PMP® Exam Prep*. We can't believe that it has been 25 years since Rita published the first edition of this book. RMC has come far since the publication of the first edition in 1998, as has the project management profession.

Back when the first edition was published, most project managers were in the United States. Now there are more international project managers than ever before. As a result of this industry growth, RMC's best-selling materials are now sold all over the world.

Project management is also a more complex profession than it used to be. Along with the processes, concepts, and methods added within the last few years, there are now just as many adaptive approaches to project management as there are predictive. The general methodologies and overall practices of project management have changed dramatically, which has increased the size of a project manager's toolbox.

PMI has recently introduced *A Guide to Project Management Book of Knowledge (PMBOK® Guide), Seventh Edition* and the *Process Groups: A Practice Guide*. There is more to learn today than ever. This increased complexity is reflected in the eleventh edition of new book.

This book is vastly different than our previous editions. Its structure is aligned to the *Examination Content Outline (ECO)*. Previous editions of this book were built around knowledge areas. In this edition, sections directly relate to the ECO's three domains: People (Domain I), Process (Domain II), and Business Environment (Domain III). It is more important than ever to read and understand the ECO because it covers the domains and introduces adaptive approaches to project management and the PMP® exam.

Throughout this book, we will remind you to look at your copy of the ECO, and we provide opportunities to use it with some new exercises.

In this book, we bring together the terminology and concepts used in the ECO, the *PMBOK® Guide*, and the *Process Groups: A Practice Guide*. We synthesize the concepts in a way that makes it easier to understand and prepares you for the exam.

Rita's Process Chart™ has helped thousands of students comprehend and apply predictive project management. It remains in this edition and we also introduce Rita's Agile Process Chart™. We believe this chart will also help you prepare for the agile content found on the PMP® exam.

And, you can still play the Rita's Process Chart™ game and Rita's Agile Process Chart™ game on our all-new RMC Resources page. The digital RMC Resources page has additional content for a deeper dive into concepts found in the book, a searchable glossary for project management terms, access to more games and interactive eLearning modules, as well as a mini version of our *Hot Topics* book.

With this edition, you also get access to our new interactive tool, RMC Chapter Quizzes. With more than 100 questions, you will be able to test your knowledge and you will get exposure to how the real exam looks.

Finally, we present a case study that will be carried throughout the book. You will be able to apply concepts presented in the chapters based on this case study.

While these are significant changes, important aspects of our book remain the same. First, and most importantly, is the conversational tone of the book. The eleventh edition maintains its down-to-earth conversational style—explaining things simply and clearly. Students say that when they read this book, it feels like Rita is talking to them. In many ways, she still is.

Another thing that remains the same is our continued commitment to helping our students not only pass the exam but also become better project managers. That is what the book, and, in fact, our company, is all about.

As you read this book, know that our plan is not to have you memorize a bunch of rules and formulas just to pass the exam and then promptly forget them. For one thing, given the situational nature of most questions on the exam, we believe that such an approach would be unsuccessful. For another, it's not what we're about. This book is not just a prep guide—it's a learning tool. If you master the contents of our book, you will pass the exam, but it's more than that. After you learn what we have to teach, you'll be a better project manager. At the end of the day, that's what the world needs. Still, our goal with this book is to get you to pass the exam on the first try.

I couldn't allow this book to go out the door without acknowledging the efforts of the team at RMC that made this happen. In particular, I'd like to thank Margo Kirwin for her significant work in updating this book. I'd also like to thank Patti Frazee and Jason Craft for their dedication and hard work on this edition.

Margo was a student of Rita's and has been a trainer at RMC for a number of years. She has the knowledge and clarity to capture Rita's vision. In addition to being an outstanding trainer, Margo has an extensive background in instructional design, which she brought to the development of this edition. She is also a talented writer who was able to maintain the conversational tone and feel of the book while working hard to explain all the elements of project management in a clear and easy-to-read way.

Patti served as the project manager and content editor for this book. Patti brought an incomparable set of skills that allowed her to help develop and edit content while also managing the constantly moving pieces of the project. Without her, this book would not have been published on time, if at all.

Jason was the talented designer of this book. With a keen eye to detail and his creative sensibilities, he made this book visually appealing and engaging. He also took our vision of the RMC Resources page and made it a reality.

When Rita created RMC, she did so to help people. That is still our goal and one of the driving values of this company. So enjoy the book, learn, and have fun.

What are you waiting for? Go get 'em.

Tim Mulcahy

President and CEO

RMC Learning Solutions and RMC Publications

Section I

Studying for the PMP® Exam

RMC has helped thousands of students worldwide pass the PMP® exam. In this section, we provide information on our proven study methods to help prepare you for the exam. We will also give you information on how to apply to take the exam and the requirements needed. In addition you will find the following:

- A self-evaluation checklist: Discover the knowledge needed to pass the exam
- How to use this book to maximize your studying time
- Some key definitions
- Other tools from RMC that can enhance your studies
- What the PMP® exam is like
- Important aspects of the exam
- Sample questions
- PMI-isms
- Study plans

1 Tricks of the Trade for Studying for the PMP® Exam

QUICKTEST

You will find a list at the beginning of each chapter of key topics covered in the chapter. Use the Quicktest to test your knowledge of those topics and uncover your gaps in understanding.

Preparing to take the PMP® exam is a journey. This journey can help you grow your career and develop your skills and abilities. This isn't just about passing an exam—you can become a better project manager. This opportunity to learn is one of the best reasons to get your PMP certification.

To pass the PMP exam, you need to truly understand project management processes, good practices, and the project manager's role and responsibilities. You also need to be able to tailor your tactics and strategies to the situations that different projects present—and to the different situations presented to you on exam questions. The PMP exam is designed to test your knowledge and experience in applying the art and science of project management.

In addition to the learning opportunity, there can also be financial incentives for passing the exam. According to Project Management Institute's (PMI®) salary survey (2020), globally, PMP-certified project managers are paid on average 16% more than those without the certification. RMC has had students who received a bonus, a raise, or both when they passed the exam. Others have reported they landed a job ahead of other qualified candidates because they were PMP certified. Having a PMP certification can be the reason you get a job, keep your job, or are promoted.

Qualifying to Take the Exam

To take the PMP exam, you must meet the current requirements as summarized below and in the following table. Requirements are subject to change, so make sure you review the requirements at pmi.org, or in PMI's *Examination Content Outline* (ECO), where this information is published.

- Your experience leading projects cannot overlap. For example: If you managed two projects at the same time for six months, you may use your experience with only one of these projects for that six-month period.
- If you are a graduate of a PMI Global Accreditation Center for Project Management Education Program (GAC) program, you will receive a 12-month credit towards the required experience.
- Work experience must be professional experience. For example: Managing a project to build your own house cannot be counted toward the work experience.
- In addition to the educational background and professional work experience found in the table on the next page, you must have at least 35 contact hours of formal project management education, unless you are an active Certified Associate in Project Management (CAPM)® holder. Active CAPM holders do not need these 35 contact hours of project management training.
- Check PMI's site to ensure that these requirements are current as PMP requirements are subject to change.

Educational Background	Project Management Work Experience
<ul style="list-style-type: none"> Secondary degree (high school diploma, associate degree or global equivalent) 	<ul style="list-style-type: none"> Minimum five years/60 months unique non-overlapping professional project management experience
OR	
<ul style="list-style-type: none"> Four-year degree (bachelor's or global equivalent) 	<ul style="list-style-type: none"> Minimum three years/36 months unique, non-overlapping professional project management experience
OR	
<ul style="list-style-type: none"> Bachelor's or post-graduate degree from a GAC accredited program (bachelor's, master's or global equivalent) 	<ul style="list-style-type: none"> Minimum two years/24 months unique, non-overlapping professional project management experience

This book will help you become familiar with the project management practices and terminology needed to pass the exam. If you don't meet the minimum requirements listed in the previous table, consider taking PMI's CAPM exam. You can find the requirements for the CAPM exam at pmi.org.

Applying to Take the Exam

Applications to take the exam must be submitted online to PMI. Here is what the process looks like after you submit your application:

- You must log into pmi.org to see if the status of your application is "accepted."
- Once your eligibility is verified, you will need to pay for your exam.*
- After you pay for the exam you can schedule it at a testing center. Alternatively, there is an option to take the exam online from your home or office.
- Once you receive authorization to take the PMP exam, you must pass the exam within one year. You can take the exam up to three times within that year.
- If you fail the exam three times, you must wait one year to reapply for the exam.

*A percentage of candidates are selected at random for audit. If you are selected for an audit, you will need to provide to PMI a copy of your degree, verification of your experience by a manager, and proof of your 35 training hours (with exceptions to these 35 training hours for active CAPM holders).

There are specific rules and instructions for each type of exam (online or at a testing center). For online exams it is highly recommended to test your computer system with their testing system before exam day. In most cases, the confirmation of your scheduled exam will give you specific details. Consult PMI's certification handbook and visit pmi.org for the most detailed and up-to-date information about testing options, locations, and exam languages available.

Are You Ready for the PMP Exam?

In our experience, half of those who fail the exam do so because they have not had fundamental project management training, or experience and training that uses PMI terminology and concepts. This is a serious factor to consider in determining whether you are ready to take the exam. This *PMP® Exam Prep* book will help you understand project management from PMI's perspective; however, if you find that many of the concepts and terms presented in this book are new to you—or you do not use many of the methods discussed in this book (such as a charter, WBS or prioritized backlog, network diagram, and management plans)—you probably need fundamental project management training before continuing to study.

Other people who fail the exam do not have enough real-world project management experience and do not understand the range of possible project types and development approaches. Instead, they may be managing very small projects or repeatable processes. Some might not even be working as a project manager. On the exam, you will need to be able to recognize from the information in scenario-based questions what type of project the question is referring to, and to answer from that perspective. This could be a large project using a plan-based project management approach, a project using an agile approach, or an approach that is a hybrid of the two. The more experience you have with a variety of project management approaches, the better prepared you will be for the exam.

The following are examples of projects that are likely to use a plan-based approach:

- Building a bridge
- Designing and constructing a new building

The following are examples of projects that are likely to use an agile approach:

- Creating a new product that does not need to have all features before its first release but can instead be released with a set of defined, critical features
- Incremental delivery of a solution where scope is emerging

The following are examples of projects or programs using a hybrid approach:

- The construction of a new building uses a plan-based approach. Then, the division and finishing of the inside of the building into office suites is completed iteratively and incrementally as leases for suites are signed.
- An internal software product for a large organization is developed and tested using a plan-based approach. It is then rolled out to a small pilot group of end users. By the end of this predictive phase and pilot, the software installation and training have been field-tested. Installation and training for the remainder of the organization can be done iteratively by department and by office until the rollout is complete.
- A very large technology project may have several adaptive “feature teams,” each assigned to develop different software components. The project management work of integrating the features produced by the feature teams may be done using agile methods while development takes place. Predictive methods may be used for rolling out the solution to user groups.

What is the depth of your knowledge and understanding of project management? Think about your project management training and experience as you review the following self-evaluation checklist. Do you understand most of these topics, and do you currently apply many of the methods included in these lists when working on your projects?

This book will help you find and fill your gaps in the project management knowledge needed to apply to situational exam questions in order to pass the exam. However, the starting assumption is that with your project management experience and education, you are already familiar with many of these concepts. The more gaps you identify, the more effort you will need to apply to exam preparation. Most chapters in this book will provide a Quicktest, or list of concepts contained in that chapter. Use that and the other instructions we provide to be sure you are filling your gaps as you work through the material in this book.

Self-evaluation Checklist

The following checklist provides an idea of the breadth of knowledge and the application of skills required to pass the exam. If you understand a list item, mark it off so that you can pay attention to those items where you have gaps in your knowledge.

- ☐ Managing a project with the urgency needed to deliver the benefits and value for which the project was selected.
- ☐ Using a systematic, plan-driven project management process, and understanding why each step is necessary. Think about this as you review PMI's Process Groups model in the "PMP® Exam References in Context" chapter and elsewhere throughout this book. Plan-driven and agile methods will be identified and compared.
- ☐ Agile philosophy for project management, and good agile practices from a variety of agile methods, including Scrum, Lean, and Kanban.
- ☐ The roles of the project manager, sponsor, product owner, team, and stakeholders.
- ☐ The use of historical information from previous projects, including lessons learned.
- ☐ What a formal project charter is and knowing what it requires.
- ☐ Prioritizing project constraints sufficiently to balance and manage competing constraints.
- ☐ What a work breakdown structure (WBS) is and how to create it.
- ☐ Creating a product and project vision sufficient to create a high-level product roadmap.
- ☐ Using a prioritized, risk-adjusted backlog of product features to create stories for iterations of product development.
- ☐ Understanding the interconnected relationship of activities (dependencies) to create the network diagram for a plan-driven project.
- ☐ What the critical path is, how to find it, and what benefits it provides the project manager.
- ☐ Using a variety of estimating techniques, including rough order of magnitude (ROM), three-point estimating, or relative estimating such as affinity sizing and story point estimating.
- ☐ Doing earned value analysis and management.
- ☐ Carrying out schedule "what if" analysis and schedule compression (crashing and fast tracking).
- ☐ Managing project float and activities that do not have float.
- ☐ Creating a realistic schedule.
- ☐ Managing the quality of both the project and the resulting deliverables.
- ☐ Developing relationships with stakeholders, and keeping them interested and involved in the project.
- ☐ Using the meetings and feedback loops necessary to continuous progress and continuous improvement on agile projects—for example, daily standups, iteration review, and iteration retrospectives.
- ☐ Using information radiators to keep stakeholders informed and engaged.
- ☐ Understanding the process of risk management.
- ☐ Calculating reserves and understanding their relationship to risk management.
- ☐ Creating a realistic and approved project management plan that you are willing to be held accountable to achieving.
- ☐ Monitoring and controlling the project according to the project management plan.
- ☐ Managing change requests and controlling change.
- ☐ Planning and developing iteratively and incrementally for change-driven projects.
- ☐ Understanding the professional and social leadership responsibilities expected of a project manager.
- ☐ Ensuring that roles and responsibilities are clear and that team members are properly trained and oriented to the project and the selected life cycle and development approach.

How to Use This Book

First, be sure you have the most current materials. This edition of the *PMP® Exam Prep* book is in alignment with the *Examination Content Outline (ECO)* for exams taken after January 2021. It also uses concepts found in resources from PMI:

- The *PMBOK® Guide, Seventh Edition* (©2021)
- *The Standard for Project Management* (published with the *PMBOK® Guide*)
- *Process Groups: A Practice Guide* (©2023)
- *Agile Practice Guide* (©2017)

Does this mean you have to read all these resources? No! We have researched what you need to know for the exam and have provided that information in this book.

How Terminology Is Used

It's important to define some terms up front. We have listed these here. You will find other terms described in the chapter where they have the most context. If a term is not defined, we may have assumed that it is a fundamental project management term, and most people understand it as common knowledge. PMI provides a *Lexicon of Project Management Terms* in their list of standards and publications (on [pmi.org](https://www.pmi.org)).

Project Environments and Project Management Approaches

Project Environment Some organizations use a single type of project management approach, like plan-driven or agile. Other organizations use a variety of approaches across the spectrum from plan-driven to agile, and hybrid. This will depend upon a variety of factors, including the type of organization, the types of products or services the organization creates and supports, organizational governance, and the characteristics of the projects the organization needs to complete to achieve its strategic goals and deliver value to its stakeholders.

Project Approach (or development approach) This refers to a selective approach to project management and product development based on the type, size, priority, and complexity of a particular project. Among other considerations, the project approach is typically selected based on how possible it is to accurately define scope and other project constraints early in the project. There is a spectrum of approaches from *plan-based* to *agile*, and *hybrid*.

When we talk about *project environments* we are generalizing about the project management (or development) approach that an organization tends to use or is using for a variety of projects at the present time. In everyday language this terminology is used differently depending on the organization, project management office (PMO), or project team. For consistency and to avoid confusion in this book we use the following terminology to describe project environments and project management approaches:

- **Environments** We describe project environments as either *predictive*, *adaptive*, or *hybrid*.
- **Approaches** We describe project management approaches as either *plan-driven*, *agile*, or *hybrid*.
 - ✓ A plan-driven approach is also known as *traditional* or *waterfall* (or *predictive*).
 - ✓ An agile approach may also be known as *adaptive*. Some people use the terms *agile* and *Scrum* interchangeably, even though Scrum is a specific agile methodology.

Project Life Cycle

A life cycle is a progression through a series of developmental stages. The project development life cycle reflects the performing organization's methodology for managing a project. It is a logical breakdown of what the project manager needs to do to produce the project deliverables, and is selected based on factors such as the type of product being developed, the industry, the organization's preferences, and the development approach.

A project life cycle can use a plan-driven or change-driven development approach, or a hybrid of the two. An example of a life cycle for new product development might include the following phases: research, design, build, test, and implement.

Tricks of the Trade for Studying for the Exam

O N E

How This Book Is Organized

This book contains six exam content-related sections.

Section I Tricks of the Trade for Studying for the PMP Exam

This is the only chapter in this section.

Section II Foundations

This section of this book is where you will learn the base knowledge that you need to understand the rest of the content of this book and to begin preparing for the exam.

“Exam References in Context” This chapter provides foundational information about the:

- **Examination Content Outline (ECO)**—which exam question writers are directed to use when writing exam questions.
- **PMI’s Process Groups Model**—is found in PMI’s book, *Process Groups: A Practice Guide*. We refer to the content of *Process Groups: A Practice Guide* as the “Process Groups model” because we consider it a great learning model for plan-based approaches, which make up a large proportion of exam questions. Your understanding the Practice Groups model will also help you understand the tasks of the ECO, and it also informs many of the practices understood to be part of the plan-based components of hybrid project management approaches.
- **Rita’s Process Chart™**, a vital study tool that has helped many thousands of students prepare for the exam by summarizing the detailed plan-driven approach to project management.
- **Rita’s Agile Process Chart™**, another vital study tool that will help students prepare for the exam by summarizing an agile approach to project management.
- Agile Approach Overview.
- Hybrid Approach Overview.
- *PMBOK® Guide, Seventh Edition* Overview.

“Project Management Foundations” This chapter discusses basics like projects, programs, portfolios, and organizational and project governance. It also discusses organization types, project selection, and project roles and responsibilities.

“Integration” This chapter discusses arguably the project manager’s most important job, which is to provide the necessary leadership to bring the needs of many stakeholders and the work of team experts together into a cohesive whole to successfully deliver the business value for which the project was selected to the organization and its stakeholders.

The next three sections of the book discuss the information you need to know for the exam from the combined perspectives of the ECO domains, the Process Groups model, and plan-driven, agile, and hybrid practices. These sections are:

Section III: The ECO People Domain

Section IV: The ECO Process Domain

Section V: The ECO Business Environment Domain

Section VI: How to Pass the First Time

This section of the book follows up on what you have learned, with instructions for continuing your studies until you are prepared to sit for and pass the PMP exam. It includes the following chapters:

- “Tips for Passing the PMP® Exam the First Time”
- “Common Agile Methodologies”
- “Additional PMBOK® Guide, Seventh Edition Concepts”

Book Chapter Organization

Most of the chapters in this book have been organized the same way: an introductory discussion, a list of Quicktest topics, an overview of the process, and review materials. This *PMP® Exam Prep* book can be used alone, but it is also part of our PMP Exam Prep System that includes our PM FASTrack® Cloud exam simulator as well as our *Hot Topics* flashcards. With your book purchase you receive access to our new tool, RMC Interactive Chapter Quizzes.

Each of chapters four through nineteen contains:

- **Introduction and processes overview** The introductory discussion provides key information for understanding the material covered in the chapter and definitions of some key terms. The overview begins your understanding of the main concepts and processes.
- **Quicktest** The list at the beginning of each chapter indicates the key topics covered in the chapter. To test your knowledge of chapter content and to review what is most important, refer back to this list when you are finished with each chapter. Use the Quicktest to test your knowledge of those topics and uncover your gaps in understanding.
- **Graphic tables and process overview charts** These outline key ECO tasks as they relate to the Process Groups model, along with associated content from *PMBOK® Guide, Seventh Edition*. The process overview charts in the Process domain chapters will give you a high-level graphic view of each process.
- **Review materials and exercises** This book contains extensive review materials and exercises within each of these chapters, where applicable. These materials have been developed based on accelerated learning theory and an understanding of the exam content.

The answers are listed immediately following the exercises. We have found that it is most effective to place the answers right after the exercises rather than later in the book. Do not skip the exercises or go straight to the answers, even if their value does not seem evident to you. The exercises and activities are key benefits of this book and will help you pass the exam. Actively working with the information by doing the exercises on your own before checking the answers will better prepare you than if you just passively read the answers.

Exercise Notebook For the exercises, you'll be prompted to create and use an Exercise Notebook. While some people will have our *PMP® Exam Prep* book in a printed form, many others will have access to our digital book. Because of this, we encourage users to create a separate notebook (either physical or electronic) to record answers. The important thing is to actively produce the answers to the exercises in a place you can come back to for review, and to make any other notes that will help you review the material for the exam.

We have numbered each exercise and encourage you to record these numbers in your Exercise Notebook. Use this tool to keep track of any gaps in your knowledge. Pay attention to any patterns in gaps. At any time, you may review your notebook for any incorrect answers or retry an exercise.



Included in the review material are tricks to passing the exam called Tricks of the Trade®. These tricks are designated by the image shown here to the left and will give you some extra insight about what you need to know about project management and how to study for the exam.



Think About It. This icon indicates a section where you will be asked to slow down and really think through a concept being presented. The “Think About It” sections will sometimes present a scenario and ask you to consider how it should be addressed; other times it may present more information on the topic at hand.



Agile Focus When we delve into the agile aspect of a topic, this icon will appear next to the text. Use it to easily find where agile concepts are being presented.

RMC Resources Web Page

New information about the exam is always emerging. RMC offers a web-based resource to help you stay up-to-date on materials. Our **RMC Resources** web page (rmcls.com/rmc-resources or scan the QR code) is a robust study tool that provides supplemental material for you to work with as well as errata and other updates to this book. **RMC Resources** includes interactive games, more in-depth information on particular topics, a project management glossary, and more. As we observe trends relevant to exam prep, we will publish additional materials on **RMC Resources**. Be sure to review the materials at **RMC Resources** to see which items will be of most help to you in preparing for the exam. We will refer to **RMC Resources** throughout the book where appropriate and provide the QR code for easy access.



RMC RESOURCES

Tricks of the Trade for Studying for the Exam

O N E

RMC Interactive Chapter Quizzes

The RMC Interactive Chapter Quizzes is an interactive tool with questions that pertain to chapters 2 through 15, which allows you to review the material and test your understanding. Refer to the “How to Study for the PMP Exam” section on page 22 to understand how and when to use these practice exams as part of your study plan. This tool will show you how you scored on the chapter quizzes as you work with this tool.

The questions in the chapter quizzes are representative of the knowledge and principles tested on the exam. Keep in mind that you cannot simply practice answering questions to prepare for the exam. The questions in the RMC Interactive Chapter Quizzes help you assess your knowledge and become familiar with the types of questions on the exam. Make sure to focus your study efforts on reading this book, doing the exercises and review activities, and filling gaps in your project management knowledge.

Using This Book with PM FASTrack® Cloud Exam Simulator

This book may be used on its own or in conjunction with the PM FASTrack® Cloud exam simulator. For information about using PM FASTrack® in conjunction with this book, see Plan A under the “How to Study for the PMP Exam” section on page 22. For a free exam simulator demo, visit exams.rmcls.com.

PLEASE NOTE: PM FASTrack® is an extremely valuable study tool, and it has been copied and sold by unscrupulous third parties. These pirated versions do not work and will not be supported or refunded by RMC for any reason. To purchase an authentic subscription to the exam simulator that complements this book visit exams.rmcls.com.

Other Study Materials for This Exam

You can use this book as a stand-alone prep tool or combine it with the following products for a broader exam prep experience. This book combined with Rita Mulcahy’s™ PM FASTrack® Cloud Simulator and digital *Hot Topics* Flashcards comprise the more comprehensive PMP Exam Prep System. In addition, you may want to consider an eLearning or live virtual class to help you become prepared for the exam.

Rita Mulcahy’s™ PM FASTrack® Cloud Exam Simulator

Our PM FASTrack® Cloud exam simulator offers over 2,200 questions, including tricky situational questions with more than one “right” answer. Other than this book, PM FASTrack® is the most important tool for passing the exam. The software



allows you to create sample spot-check exams by ECO domain, process group, keyword, content (or knowledge) area in addition to a full PMP exam simulation (even a super PMP simulation). The full-license online subscription allows for up to five full, unique 180-question PMP exam simulations (meaning no repeated questions). PM FASTrack® also saves you a lot of time by automatically scoring and keeping records of exams, and providing reporting capabilities. All questions are cross-referenced with this book or another available resource (like RMC Resources), making it easy to go back to the topics on which you need more studying.



Rita Mulcahy’s™ Hot Topics Flashcards (Digital Format)

Rita’s *Hot Topics* is a great supplement for this book and many students find “flash cards” like these invaluable for reviewing for exams of all kinds. With *Hot Topics* you can review on a PC or mobile device with RMC’s digital format. Hundreds of the most important and difficult-to-recall PMP exam-related terms and concepts are available for study as you drive, fly, or take a work break.

Instructor-led and eLearning PMP® Exam Prep Courses

If you learn more easily in a person-to-person interactive environment or simply need education contact hours to sit for the exam, RMC regularly offers a variety of highly rated instructor-led live virtual courses. And we offer eLearning courses as well. Consider one of these if you want to enhance your exam prep learning experience in a fun and effective environment. You can review our offerings at <https://rmcls.com/pmp-exam-prep/>.



PMI Materials

The *PMBOK® Guide, Seventh Edition* (2021) is an international standard for project management from PMI. It contains important concepts related to project management. Use it in conjunction with PMI's *Process Groups: A Practice Guide* (2022), *Agile Practice Guide* (2017), and their *Examination Content Outline* (ECO) (2021) for the current exam. You do not need to memorize the information in these books or even read them from cover-to-cover. We have included the important exam information from them in this book. Simply use them from time to time as reference material that we may refer to in this book.

It can feel overwhelming to have so many resources to review. In the “PMP® Exam References in Context” chapter of this book we will help you connect the pieces and gain a better understanding on how these resources relate to the exam.

What Is the PMP Exam Like?

Keep in mind three important things about the PMP exam. First, the exam is not a test of the information in the *PMBOK® Guide*. Its questions are written by project managers with the PMP certification, based on real-world situations. Second, while your real-world experience is essential to helping you pass the exam, you cannot rely on it alone. Third, training in professional project management that is aligned with the ECO, the Process Groups model presented in *Process Groups: A Practice Guide*, and the *Agile Practice Guide* is critical for exam success.

The exam includes 180 questions, all of which are situational. The questions may appear in one of five different formats. These include multiple-choice, multiple responses, matching, limited fill-in-the-blank, and hot spot (e.g., you are asked to place identifying plots on a chart). See the Question Examples section in this chapter for examples of these question formats. The exam must be completed in 230 minutes, which is just under four hours. You will be given the opportunity for two 10-minute breaks during which the exam timer pauses.

You will be scored on 175 of the 180 exam questions (since five are newly written “trial” questions that will not be scored). PMI does not publish what it considers to be a passing score. Based on exam history, however, we estimate that it is somewhere between 61 and 64 percent (about 110 to 114 questions correct out of 180).

The questions are randomly generated from a database based on how many questions must be included from a particular content area (the ECO People domain, for example). One point is given for each correct answer, and of course, you must accumulate enough correct answers to exceed the passing threshold.

The following table shows the percentage of scored questions on the exam for each *Examination Content Outline* (ECO) domain.

<i>Examination Content Outline</i> (ECO) Domains	Percentage of Questions
People	42%
Process	50%
Business Environment	8%
TOTAL	100%

The “PMP® Exam Reference in Context” chapter contains more detail on ECO domains. PMI occasionally makes changes to aspects of the exam, including the qualification requirements, the application process, and the breakdown of questions in each domain. For the latest information, please visit pmi.org and read the ECO, the Certification Handbook, and your authorization notice carefully. Any differences between what is listed here and what is communicated by PMI should be resolved in favor of the latest information posted on pmi.org.

Additional Important Aspects of the Exam

- The exam tests knowledge, application, and analysis. This makes the exam more than a test of memory. You must know how to apply the information in this book and be able to analyze situations involving this information. Do not expect the exam to have a majority of straightforward, definition-type questions.
- The exam deals with practical experience. Questions are based on a situation, described in each one. For those who do not have the appropriate project management experience, these questions can be very difficult.
- There may be instances on the exam where the same data are used for multiple questions. You may also see data repeated in answer choices.
- Many questions focus on “what should the project manager do” in the given question situation. It is important not just to understand project management processes, but to understand the relationships of artifacts and methods related to these processes.
 - ✓ As you recognize a process on an exam question you should be able to bring to mind what artifacts (sometimes referred to as inputs) and what methods you need as a project manager to carry out the process. For example, in order to carry out a Manage Stakeholder Engagement process properly, you need a stakeholder engagement plan (which is part of the project management plan for plan-based projects).
 - ✓ You must also understand what artifacts you have as a result of a particular process once it is carried out (sometimes referred to as outputs). A process often results in updates to some of the same artifacts you needed to use to begin the process. For example, the stakeholder engagement plan (created during the Plan Stakeholder Engagement process) is used and followed during the Manage Stakeholder Engagement process, but the plan is also updated as a result of the Manage Stakeholder Engagement process.
 - ✓ In addition to artifacts and methods for carrying out processes, you should understand the desired outcomes of processes. In the previous example of the Manage Stakeholder Engagement process, there are artifacts that result from the work, but you also have good relationships with your stakeholders, are able to manage their expectations appropriate to project conditions, and therefore achieve stakeholder satisfaction with the project and its results.
- Historically, there have been up to 6 or 7 formula-related calculations on the exam, but more recently there have been only 1 to 3.
- Expect 7 to 10 earned-value questions on the exam. Note that most earned value questions focus primarily on your understanding of the concepts behind earned value and not on performing calculations.
- Project management terminology often uses acronyms. Most acronyms will be spelled out (for example, the exam typically uses the full term “work breakdown structure” rather than “WBS”) Nevertheless, you should know both the acronym and the full term for the exam.
- Most people feel uncertain about only 36 or fewer of the 180 questions on the exam. Concentrating on understanding the concepts and being able to think holistically about these concepts will contribute to your confidence in answering questions.
- The exam software has tools helpful in processing questions. For example, you can use:
 - ✓ **Mark for Review** to tag questions you are unsure of, to come back to later before you submit the exam.
 - ✓ **Highlight** parts of a question you think are most important to the situation and to selecting the right answer.
 - ✓ **Strikethrough** parts of a question you think are least important to the right answer or are “distractors” that will complicate your ability to correctly answer the question.

Question Examples

Questions on the exam are situational, meaning to answer them you must apply your knowledge and experience to the given scenario rather than just giving a textbook response. Many questions are ambiguous. Questions often seem like they have two or more right answers. Prepare for the following types of questions so you will not be caught off guard when you are taking the exam.

1. **Situational questions** These demonstrate why project management experience and knowledge of good practices are critical to passing this exam. Such questions require you to align your real-world experience with knowledge of the exam concepts. For example:

Question The project manager receives notification that a major item they purchased for a project will be delayed. What is the best thing for the project manager to do?

- A. Replan the project to accommodate this delay.
- B. Notify the project sponsor.
- C. Let the customer know about it and talk over options.
- D. Meet with the team and identify alternatives.

Answer D

2. **Questions with two or more right answers** Multiple choice questions that appear to have two or more right answers are a major complaint from test takers. These questions, which list several choices that could reasonably be done, require analysis and the process of elimination to find the best answer for the given scenario and question details.

As you go through questions and review the answers in the RMC Interactive Chapter Quizzes, look for questions you think have more than one right answer and try to figure out why you think multiple choices are correct. We have intentionally included such questions in the RMC Interactive Chapter Quizzes to give you exposure to these types of questions. We provide explanations to help you understand why your right answer may not be the best choice.

Let's look again at the previous situational question. Couldn't we really do all the choices? The right answer is D, but isn't it also correct to tell the customer? Yes, but that is not the *first* thing to do. This question is really saying, "What is the best thing to do *next*?" or "What should the project manager do *next*?" As you answer practice questions, keep in mind the concept of the "best thing to do *next*" to help you decide which answer identifies the project manager's responsibilities in the given situation.

Note: By "proper project management" we generally mean project management according to systematic and agreed-upon good practices. More specifically for the exam, if we are talking about the order of activities within a process, it should relate to how processes are described in the ECO domains, the Process Groups model, or the *Agile Practice Guide*. We know that processes can vary in their order of activities but as PMI has sometimes been specific on this, we will be specific as well. In other words, for the exam we mean "proper project management" according to PMI. Be careful—this will sometimes not align with your everyday project management experience.

3. **Questions with extraneous information** Not all information in a question will be relevant.

Question Your next project involves managing an agile initiative to distribute new driver management software to your firm's taxi fleet. At this point the project steering committee is debating whether to contract with a usability testing service for the project. They ask for your input on whether this would be cost-effective. You reply that while you don't have the specific data yet, as a general rule:

- A. The most economical time to test would be near the end of the project when the screens are done and less likely to change.
- B. Finding issues earlier is always preferable since it is likely to save a lot of money in the long run.
- C. Defects found by the developers are less costly to fix than those found in review or testing.
- D. Testing the screens near the end of the project will leave little time to incorporate changes.

Answer B

In this example, the type of system being developed (driver management) doesn't affect the answer. It is extraneous information meant to distract you.

4. **Questions using made-up terms** Many people taking the exam expect that all the terms used as choices should mean something. That is not the case. Answer choices sometimes include made-up terms. If you consider yourself well prepared and see a term on the exam you do not know, chances are it is not the right answer. For example:

Question The WBS, estimates for each work package, and the network diagram are completed. The next thing for the project manager to do is:

- A. Sequence Activities
- B. Develop Schedule
- C. Validate Scope
- D. Resource Simulation

Answer B

In this question “resource simulation” (choice D) is not a real project management term.

5. **Questions where understanding is important.** Let’s look at the following question:

Question The senior web designer on a project just came down with the flu in the middle of an iteration. What should the project manager do?

- A. Meet with the team to find out how much of the planned work will be done.
- B. Ask the two other designers to work overtime this week.
- C. Ask the product owner to postpone the product demo until the iteration goal is done.
- D. Call the web designer's functional manager and ask for a new designer for the rest of the iteration.

Answer A

In order to answer this question, you must understand iteration timeboxes and how agile teams work.

6. **Questions with a new approach to a known topic** There will be many instances where you understand the topic but have never thought about it as described. For example:

Question A product is being built iteratively on a new technology platform. When the project manager asks the team members about the quality of the early product increments, they say “They’re fine.” How can the project manager verify that the new technology is supporting the quality objectives of the project?

- A. Ask the team to present performance testing results showing the actual vs. expected measures.
- B. Ask the product owner how well the technology is delivering business value.
- C. Present the quality management plan to the team's coach and ask if the technology is supporting the plan.
- D. Bring in an auditor to assess the quality.

Answer C

Seeing the words “iterative” and “increments” should make you think this is an adaptive life cycle project but that might steer you away from an answer referring to a management plan. Management plans can be used on adaptive and hybrid project life cycles if the project manager sees value in the plan.

7. **Questions with more than one item in each choice** Let's look at the following example:

Question The seller has presented the project manager with a formal notification that the seller has been damaged by the buyer's activities. The seller claims that the buyer's slow response to the requested approvals has delayed the project and has caused the seller unexpected expense. The first things the project manager should do are:

- A. Collect all relevant data, send the data to the company attorney, and consult with the attorney about legal responses.
- B. Review the contract for specific agreed-upon terms that relate to the issue, see if there is a clear response, and consult an attorney if needed.
- C. Review the procurement statement of work for requirements, send a receipt of claim response, and meet to resolve the issue without resorting to legal action if possible.
- D. Hold a meeting with the team to review why the acceptances have been late, make a list of the specific reasons, and correct those reasons.

Answer B

These questions can seem hard until you apply this little trick. Use the process of elimination, one item at a time. Consider the first item listed in each choice and eliminate the choices that contain an implausible first item, if applicable. Then look at the second item in each remaining choice and eliminate any implausible choices. Keep going until you have one choice remaining.

Watch out! Sometimes the items in each choice show a flow or process. See the following example to think about how sometimes the items in each answer choice show a flow or a process:

Question A resource issue has come up on a construction project. Which of the following is the best way to deal with the problem?

- A. Go to the team, go to management, go to resources managers
- B. Go to resource managers, go to management, go to the customer
- C. Handle it yourself, go to the customer, go to management
- D. Resolve problems with resources you control, go to resource managers, go to the customer.

Answer D

In this case you need to look at each choice independently to see if the process listed is correct.

8. **Excessively wordy questions** Instead of saying "The project is behind schedule," the exam might use wordier phrasing such as "The project float was zero and has recently gone to negative 2." Instead of saying "The team is not reporting properly," the exam could say "The team has lost sight of the communications management plan." The first step in answering many questions is to determine what the question is really asking, and then to translate the wordy phrasing.

Questions in Different Format Types

Our examples so far have used a typical multiple-choice format to point out specific characteristics of the way questions are worded on the exam. Now take time to look at the other, newer question formats that are used on the PMP exam.

1. **Multiple responses answer** Questions using this format ask you to choose two or three correct answers, as in this example:

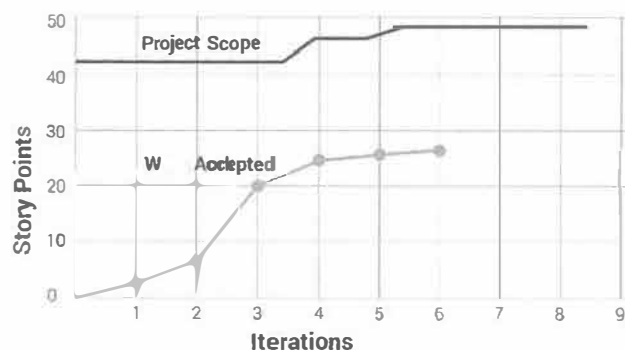
Question Several stakeholders have different opinions about the product requirements. Which two of the following techniques could the project manager use to bring the group to consensus?

- A. Facilitated workshop
- B. Interview
- C. Backlog refinement session
- D. Observation
- E. Survey
- F. Mind mapping

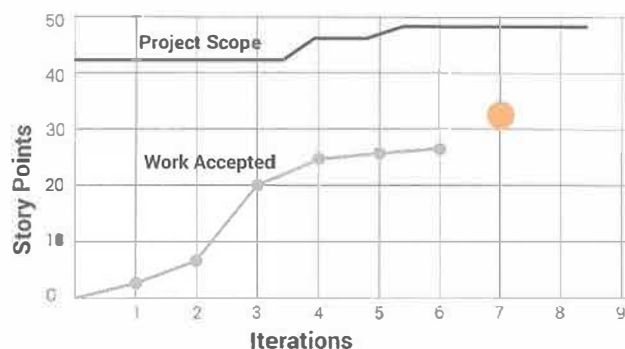
Answer A, C

2. **Hot spot questions** These types of questions show you a graphic on which you will have to click a “hot spot” containing the correct answer:

Question Review the Burnup Chart. The team’s velocity has averaged 4.6 story points per iteration with 27 points completed. The project scope was increased during iterations 3 and 4 to a total of 48 story points. Management would like the project scope to be completed by iteration 9. What should be the team goal for iteration 7? Click on the diagram showing the next data point in the Work Accepted line.



To answer the question, click on a “hot spot” on the diagram as shown below.



3. **Matching question** Questions in this format will give you two columns of concepts to match. In the following example, the test taker would drag the cards in the “Action” column to to the center box that aligns with the “Order in which to perform” column.

Question During a team retrospective, the project manager senses a conflict. In what order should the project manager use the following actions to address the conflict?

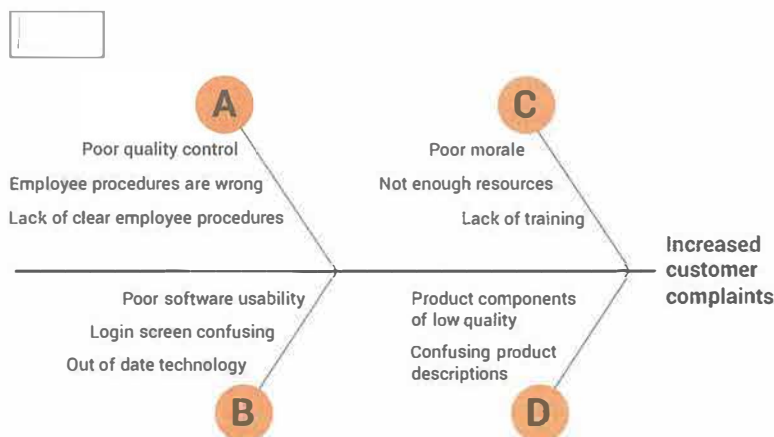
Action		Order in which to perform
Decide what, if any, intervention is needed		First
Determine the level of conflict		Second
Observe the situation and listen to both sides		Third
Assess the group's energy, words and body language		Fourth

Answer

Action		Order in which to perform
Decide what, if any, intervention is needed		First
Determine the level of conflict		Second
Observe the situation and listen to both sides		Third
Assess the group's energy, words and body language		Fourth

4. **Limited fill-in-the blank** These types of questions will ask that you type the answer (represented by a blank space in the question) in a box given:

Question Review the fishbone diagram for the problem: Increased customer complaints. Enter the letter indicating the area that includes the possible causes of the problem related to people.



Answer C

Recurring Themes—PMI-isms to Know for the PMP Exam

RMC has been helping people pass the PMP exam and become better project managers for more than 30 years. During that time, we have developed the following list of “PMI-isms” the exam assumes but many project managers do not know. We suggest you read it now and then remember to reread it along with the Tricks of the Trade in this book, before you take the actual exam. Assuming PMI-isms to be true (unless the question evidence says otherwise) will help you pick the best answer from what seems like more than one correct answer. Look for PMI-isms in the “Quality of Deliverables and Products” chapter as well. We have some there that are specific to quality. For the exam, assume that you have (or do) all the following and that these concepts are true for your projects. As you review these PMI-isms, think about which ones are true for your projects. If there are any that aren’t true for your projects, you may have a gap in your knowledge. It’s important to make note of any gaps you may have and review these gap areas as part of your overall study plan.

Important: PMI represents project management practices along a range of approaches that are predictive, adaptive, and hybrid (a combination of approaches). As you study these PMI-isms, keep in mind that a project manager should tailor the approach to fit the needs of the project.

General PMI-isms

- ☐ Without a skilled project manager, the vast majority of projects will fail. With a person educated in the skills of project management, regardless of title, a project has a high likelihood of success.
- ☐ The project manager puts the best interests of the project first—not their own interests.
- ☐ The project manager understands the value of the principles, methods, models, and artifacts of project management and knows how to adapt them to the type of project they are managing.
- ☐ The project manager is assigned during project initiating (or sooner), not later in the project.
- ☐ The project manager understands the process of project management (i.e., what to do first, second, etc., and why) and has the ability to make proactive tailoring decisions.
- ☐ Organizations have a formal project selection process, and they choose projects based on how well those projects meet the organization’s and its stakeholders’ needs and strategic goals.
- ☐ The project manager understands why their project was selected. They ensure while planning and managing the project that the project delivers the benefits and value for which it was selected.
- ☐ The project manager and team create a product and project vision and the project manager works throughout the project to foster a common understanding of the product and project vision.
- ☐ The project manager plans, manages, monitors and controls scope, schedule, cost, quality, risk, and resources, using projects to deliver value to the organization and its stakeholders.
- ☐ In an adaptive environment, the agile coach (or Scrum Master) ensures that the appropriate processes and tools and techniques are well understood and being followed.
- ☐ Agile teams are empowered to manage their own work according to objectives as prioritized by a product owner (or value management team).
- ☐ Teams are trained and coached by the project manager (agile coach, Scrum Master) for skills appropriate to the approach being used on the project on which they are working.
- ☐ Agile teams are coached to not just know agile processes but to “be” agile.
- ☐ Each project is approached holistically and managed and executed as a value delivery system for the organization and its stakeholders.
- ☐ Team members are motivated, empowered, and engaged, and come prepared with suggestions; they don’t require micromanagement from the project manager.
- ☐ Organizations have a project management office (PMO), and that office has important, clearly defined responsibilities regarding projects across the organization.
- ☐ Organizations have project management policies, which the project manager complies with on their project. These policies may include project management methodologies, risk procedures, quality procedures, and development approach preferences.

- ☐ Projects have a beginning and an end and are used to create unique solutions to solve particular business problems and serve particular business needs.
- ☐ A project may be part of a program or portfolio, and the project's relationship to other projects could significantly influence how the project manager works.
- ☐ Organizations keep records (e.g., historical information and lessons learned) from previous projects that include planning artifacts and artifacts of the project's actual results. The project manager uses these organizational process assets to plan their project. The project manager then feeds their own project's records and lessons learned back into the organization's knowledge base.
- ☐ Organizational governance includes policies related to safety, diversity, and inclusion and a variety of other social responsibilities meant to protect workers, stakeholders, the organization, and society at large. Project managers proactively learn these and use them on projects.
- ☐ Project managers and other organizational leadership are screened for and otherwise trained in, and practice, emotional intelligence in relationships with the team and project stakeholders, as part of their leadership skills.
- ☐ The project manager works within the existing systems and culture of a company (enterprise environmental factors), and one of a project's results is to provide input to improve those systems.
- ☐ Every project has a project charter, which authorizes the project and the role of the project manager.
- ☐ Every project has adequately planned and executed transition of the product of the project to the customer (or operations, for internal projects). The transition is an integral part of the Close Project or Phase process.
- ☐ A work breakdown structure (WBS) and WBS dictionary are used on all plan-based projects. An agile project manager uses a product backlog, a product roadmap, story maps, and stories.
- ☐ A project management plan is a series of management plans. The project manager creates a project management plan and other project artifacts tailored to the projects' development approach and life cycle, and other specific project characteristics.
- ☐ The project manager keeps all project artifacts current to help manage and control a project.
- ☐ Stakeholders are involved throughout the project. Their needs are considered while planning the project and creating the communications management plan and the stakeholder engagement plan.
- ☐ People must be compensated for their work and deserve a fair and positive environment in which they can contribute their best work.
- ☐ Agile project stakeholders are represented by a product owner as part of the team. Team members can see stakeholder perspectives through the use of personas and other agile tools.
- ☐ Agile team members engage daily with stakeholders either directly or through the product owner to design and build the product, conduct iteration reviews, and then use iteration retrospectives as part of their own continuous improvement process.
- ☐ Gold plating (adding extra functionality) is not in the best interests of the project and should be prevented.
- ☐ Projects are managed in a matrix environment in which tools and techniques are typically straightforward. However, it's important to know that concepts and tools such as motivation theories and conflict resolution may become more complicated in alternate environments.
- ☐ The project manager has a professional responsibility to properly use and tailor tools and processes appropriate to the selected development approach and life cycle.
- ☐ Project managers practice servant leadership to facilitate success of the team and the project. They are trusted stewards of organizational and stakeholder resources and needs and carry out their responsibilities in the best interests of both.
- ☐ Stewardship for the project managers include holistic points of view and holistic practices to carry out their financial, social, technical, and environmental responsibilities to the organization, its teams and stakeholders, and the larger society.
- ☐ Project managers are knowledgeable about the business environment and carry out their responsibilities related to environmental factors affecting the project or factors that the project affects.

Planning the Project

- ☐ All projects must be planned using planning processes tailored to the project.
- ☐ In a predictive environment the project manager plans the project with input from the team and stakeholders. Adaptive environments include the whole team to do the planning.
- ☐ Planning involves selecting a project life cycle and development approach suitable for the project.
- ☐ Each project constraint plus other factors important to project success (requirements and scope, schedule, cost, quality, resources, communications, risk, procurement, stakeholder management) will be planned, managed, and controlled. Plan length and detail may vary by size, complexity, and priority of the project as well as by development approach.
- ☐ In agile environments a project manager uses guidelines from an appropriate holistic and formalized methodology established according to the performing organization's governance.
- ☐ The project manager, team, and other appropriate subject matter experts determine quality measurement metrics.
- ☐ The project manager plans for and practices continuous process improvement.
- ☐ The project manager creates and uses a recognition and rewards system appropriate to each project.
- ☐ The project manager clearly documents and assigns project roles and responsibilities with the help of the team. These include reporting responsibilities, risk management assignments, meeting attendance, and project work. Agile teams have generalizing specialists who are experts in one or more field but can and will help in other areas where needed.
- ☐ The project manager and team focus with rigor on identifying risks in alignment with the approach.
- ☐ Team members and other stakeholders participate in risk identification and risk management responsibilities.
- ☐ The project manager and team appreciate that managing risks saves the project time and money.
- ☐ Project cost and schedule cannot be finalized without completing risk management.
- ☐ Plan-based project management includes creating realistic schedules and budgets based on the project's defined scope. Agile project management entails being flexible with scope while keeping schedule and cost realistic and fixed.
- ☐ The project manager assesses whether a plan-based project can meet the end date(s) and other project constraints and objectives. They meet with management to resolve differences before project work starts. The project manager knows unrealistic schedules are their fault because they have tools and skills to help solve them.
- ☐ The project manager for an agile project establishes the minimally viable product (MVP) that can be delivered within the cost, schedule, and other project constraints. They provide plans for delivering the MVP in releases through iterative and incremental product building and delivery.
- ☐ The project manager plans when and how to measure performance against the performance measurement baseline, as documented in the project management plan. They plan for other methods, like value stream mapping, to be used to determine how the project and processes are performing while the work is being done.
- ☐ The project manager plans for stakeholder engagement at all levels and creates tactics to establish and maintain stakeholder engagement at the desired level for each stakeholder or group.
- ☐ The project management plan is realistic, and everyone believes it can be achieved.
- ☐ The project manager holds a kickoff meeting with the team.

While the Project Work Is Being Done

- ☐ The project manager is responsible for facilitating documentation and knowledge sharing during the project.
- ☐ The project manager measures against the project management plan to help determine project status throughout the life of the project.
- ☐ Projects are re-estimated throughout the life of the project to make sure the end date(s) and cost objectives will be met. Therefore, the project manager almost always knows if the project can meet the agreed-upon end date(s) and budget.
- ☐ The project manager has authority and agency. They can say no and work to control the project for the benefit of the organization and its stakeholders.
- ☐ A change in scope must be evaluated for its impacts to the project's schedule, cost, quality, risk, resources, and customer satisfaction. The project manager has enough data about the project to do this analysis.
- ☐ The project manager realizes that, over time, people associated with the project may have different understandings about what the project is and what could occur during the project life cycle. The project manager is continually facilitating a common understanding and appropriate expectations.
- ☐ The project manager understands, and takes seriously, resource responsibilities on a project.
- ☐ The project manager spends time on such activities as team building and ensuring high team performance.
- ☐ The project manager is proactive, finds problems early, looks for changes, and prevents problems.
- ☐ Risk is proactively managed. Most issues that occur have risk response plans to deal with them. Agile teams work with a risk-adjusted backlog that includes risk response plans.
- ☐ Risks are addressed at every team meeting.
- ☐ Project meetings have planned agendas that are followed. Agile team meetings take the form of daily standup meetings that are short and follow their set agenda strictly.
- ☐ All changes to a project management plan flow through the change management process and integrated change control (or its agile equivalent).
- ☐ The project manager and team execute and control the project with the urgency needed to accomplish the goals and objectives for which the project was undertaken.
- ☐ The project manager ensures that the project is compliant with organizational governance and with any applicable laws and regulations external to the organization.
- ☐ The project manager recommends improvements to the performing organization's standards, policies, and processes. Such recommendations are expected and welcomed by management.
- ☐ Quality should be considered whenever there is a change to any component of the project.
- ☐ Quality should be checked before an activity or work package is considered completed.
- ☐ The project manager works closely with the quality department in performing some of the quality activities discussed in *Process Groups: A Practice Guide*.
- ☐ The project manager is actively involved with the procurement process and assists in managing procurements.
- ☐ The project manager understands contract language.
- ☐ The project manager makes sure all the terms of a contract are met, including those that do not seem important.

Closing the Project

- ☐ No project is complete until the product is transitioned to the stakeholders, and training has been provided on use and maintenance of the product to realize its benefits, as needed.
- ☐ No project is complete until there has been final acceptance from the customer.
- ☐ All projects produce a final report that gives the project team a chance to announce the project objectives have been met.
- ☐ The project manager and team ensure that all project records are updated and archived.

Which items in this list seem different from the way you or your organization manages projects? Which of these items do you not understand? Review this list when you think you are finished studying. Pay particular attention to those items that aren't true of your projects. Are there any items you need to think about more to make sure you will remember them when you take the exam? Knowing these PMI-isms can make a significant difference. Most students have everyday project management experience that differs from a good number of these PMI-isms, making this a significant gap that students need to bridge before taking the exam.

How to Study for the PMP Exam

Some people believe you need to read every known resource available, watch lots of videos and spend as much time as possible preparing for the PMP exam. Do not make that mistake. You should not read everything you can find, as some resources are not well vetted. We recommend the approach outlined in the following sections.

The Magic Three Studies have shown that if you visit a topic three times, you are more likely to remember it. Read this book once and then skim through it two more times, focusing most on the activities you do not do in the real world and on the concepts you have trouble understanding or remembering. You should document these as you work through this book as they represent the gaps in your knowledge and understanding to fill before the exam.

Be in Test-taking Mode Get used to jumping from one topic to another. You'll also need to practice answering questions for four hours. You can do this by waiting to do any chapter quizzes until you feel ready to answer the questions. Then take all of RMC Interactive Chapter Quizzes in one sitting (see step 4 in plan B on page 24). Do not underestimate the physical, mental, and emotional aspects of taking an exam lasting that long. You can also get into test-taking mode using our PM FASTrack® exam simulator.

Your Step-by-Step Study Plan

We recommend that you use one of the following study plans. Follow Plan A if you own RMC's complete PMP Exam Prep System (This *PMP® Exam Prep* book, the PM FASTrack® Cloud Exam Simulator license, and *Hot Topics*). Follow Plan B if you own only the book and not the entire system.

Plan A: Using This Book with the PMP Exam Prep System

(*PMP® Exam Prep* book, PM FASTrack® Cloud Exam Simulator, and *Hot Topics*)

One common mistake people who purchase the PMP® Exam Prep System make is to spend most of their study time answering questions in PM FASTrack®. This approach won't work. As we mentioned earlier, focus your efforts on reading this book, completing the exercises and review activities, and filling the gaps in your applicable knowledge of proper project management practices for plan-based, agile, and hybrid projects. Use the following steps to study this book along with PM FASTrack® and *Hot Topics*:

Read this book for the first time and complete the exercises. Spend more time on the areas where you recognize you have knowledge or experience gaps; items you did not know or do prior to beginning this course of study. Refer to Rita's Process Chart™ and Rita's Agile Process Chart™ frequently (included in chapter 3 of this book). Be sure you understand all the efforts involved in the topics you are working on. Use the ECO as directed in each of the ECO domain chapters to become comfortably familiar with the ECO content by the time you are finished with this book.

1. As you finish each chapter, review the Quicktest at the beginning of the chapter. Make sure you know the meaning of each concept. Use *Hot Topics* to improve recall and test your knowledge of each chapter.
2. If possible, form a study group after you have read the book for the first time on your own. Your study time will be more effective. You will be able to discuss content together and the studying (and celebrating afterward) will be more fun. A study group should consist of only three or four people. (See How to Use This Book in a Study Group on page 25.)
3. Skim through this book again, reviewing areas where you are not confident with the content.
4. For these areas you reviewed because you had less confidence, answer a small sample of questions (no more than 20) using the Focused Test function in PM FASTrack®. Analyze why you answered questions wrong and continue to study these gap areas. PM FASTrack® helps with this by allowing you to download a spreadsheet of the questions you got wrong. It is called “Export Analysis Data” in PM FASTrack®.
5. When you feel you are prepared to do so, take a full exam simulation on PM FASTrack®. This step will give you a baseline against which to track your progress as you continue to study.

WARNING: Limit yourself to no more than two full exam simulations before you take the actual exam. Otherwise, you diminish the value of PM FASTrack® by memorizing questions and answers that will not be presented in the same way on the exam.

WARNING: If you do not score 70 percent or more the first time you take a full exam simulation (not just a shorter exam on a single content area or ECO domain), you may need a refresher in basic project management concepts. If you have taken a project management fundamentals class, review the materials you received from that class. If you have not had this class, consider taking one. Or you may need a PMP Prep class. Contact us using the information on rmcls.com/contact-us/. We can help assess your needs.

6. Review each question you got wrong in PM FASTrack®, recording the specific reasons for each wrong answer. Assess why the correct choice is correct and why the other answers are wrong. In PM FASTrack®, we explain the answers and give references to help you quickly return to the related content. Use the “Export Analysis Data” within FASTrack to download a spreadsheet of questions you got wrong.
 7. Use your list of why you got each question wrong (from the previous step) to determine what to study further. This will help you determine how much more study time you need and which content areas to review more carefully. Continue to study this book, focusing on areas in which you have more gaps and skimming sections or chapters on which you did well. For chapters you need to review, always start by reviewing the Overview sections of the chapter, where we map the ECO to other PMI resources and point out important aspects of ECO domain tasks. And remember, think about good project management practices according to PMI as discussed in this book and based on approaches along the plan-driven, agile, and hybrid spectrum. Do this regardless of how you manage your projects in the real world.
 8. For the topic areas where you had the most trouble, review these again. Then you may want to answer a small sample of questions (no more than 20) using the Focused Test function in PM FASTrack®. Analyze why you answered questions wrong and continue to study gap areas.
- WARNING:** You might be tempted to answer more than 20 questions, but this should be sufficient to assess your progress in the particular content area and whether you need to study more. Answering more than 20 questions in a particular area can diminish the value of PM FASTrack® and will not prepare you for the breadth of the exam experience.
9. Take your second and final PMP simulation exam. You should score over 75 percent before you take the real exam. You are overusing PM FASTrack® if you see many repeated questions.
 10. Use *Hot Topics* and other materials to continue to review the content until you take the exam.
 11. Create your test strategy (see the “Tips for Passing the PMP Exam the First Time” chapter).
 12. PASS THE EXAM!

Plan B: Using This Book As a Stand-Alone

(PMP® Exam Prep book, RMC Resources, RMC Interactive Chapter Quizzes)

Read this book for the first time and complete the exercises. Spend more time on the areas where you recognize you have knowledge or experience gaps; items you did not know or do prior to beginning this course of study. Refer to Rita's Process Chart™ and Rita's Agile Process Chart™ frequently (included in chapter 3 of this book). Be sure you understand all the efforts involved in the topics you are working on. Use the ECO as we direct in each of the ECO domain chapters, to become comfortably familiar with the ECO content by the time you are finished with this book.

1. As you finish each chapter, review the Quicktest at the beginning of the chapter. Make sure you know the meaning of each concept.
2. If possible, form a study group after you have read the book for the first time on your own. Your study time will be more effective. You will be able to discuss content together and the studying (and celebrating afterward) will be more fun. A study group should consist of only three or four people. (See "How to Use This Book in a Study Group" on page 25.)
3. Skim through this book again, reviewing areas where you are not confident with the content.
4. Once you feel confident about the material, take the interactive RMC Interactive Chapter Quizzes in one sitting. This will give you a baseline to tell you how much you have learned. It will also help you determine how much additional study time you need and which chapters to read more carefully.
5. Review each question you got wrong in RMC Interactive Chapter Quizzes, writing down the specific reasons for each wrong answer. Assess why the correct choice is correct and why the other answers are wrong. Review each question you got wrong in RMC Interactive Chapter Quizzes, recording the specific reasons for each wrong answer. Assess why the correct choice is correct and why the other answers are wrong. In RMC Interactive Chapter Quizzes, we explain the answers and give references to help you quickly return to the related content. RMC Interactive Chapter Quizzes help with this by allowing you to download a spreadsheet of the questions you got wrong (it is called "Export Analysis Data" within the RMC Interactive Chapter Quizzes tool). Continue to study this book, focusing on the areas in which you have gaps in your knowledge and skimming the sections or chapters on which you did well.
6. Correct any errors in your understanding of the concepts discussed in this book.

WARNING: If you do not score 70 percent or more the first time you take the RMC Chapter Quizzes, you may need a refresher in basic project management concepts. If you have taken a project management fundamentals class, review the materials you received from that class. If you have not had this class, consider taking one. Or you may need a PMP® Prep class. Contact us using the information on rmcls.com/contact-us/. We can help assess your needs.

7. Make sure you really know the material, and then retake the RMC Interactive Chapter Quizzes. As with step 5, use downloaded spreadsheet from the tool to identify the specific, not general, reason you got each question wrong.
8. Use your list of why you got each question wrong (from the previous step) to determine what to study further. This will help you determine how much more study time you need and which content areas to review more carefully. Continue to study this book, focusing on areas in which you have more gaps and skimming sections or chapters on which you did well. For chapters you need to review, always start by reviewing the Overview sections of the chapter, where we map the ECO to other PMI resources and point out important aspects of ECO domain tasks. And remember, think about good project management practices according to PMI as we discuss in this book and based on approaches along the spectrum of plan-based, agile, and hybrid. Do this regardless of how you manage your projects in the real world.
9. Create your test strategy (see the "Tips for Passing the PMP® Exam the First Time" chapter).
10. PASS THE EXAM!

How to Use This Book in a Study Group

To get started, pick someone to lead the discussion of each chapter (preferably someone who is not comfortable with the chapter, because the presenter often learns and retains the most in the group). Each time you meet, go over questions about topics you do not understand and review the hot topics on the exam using the *Hot Topics* flashcards if you have them. Most groups meet for one hour per chapter. Either independently or with your study group do further research on content you are not confident with questions you answered incorrectly in RMC Interactive Chapter Quizzes or PM FASTrack®.

Each member of the study group should have their own copy of this book, which can be used within the group to make study and discussion commitments for group sessions. (Please note that it is a violation of international copyright laws to make copies of the material in this book or to create derivative works from this copyrighted book.)