Contents

Foreword xxxvii
Preface xxxix
Acknowledgments xliii

CHAPTER I PROJECT MANAGEMENT BASICS 1

Projects, PMs, Project Management, and Programs 1

Q1. What is the formal definition of a project? 1
Q2. How would you define the terms project management and project manager? 1
Q3. What are a few good examples of projects? 2
Q4. What's the difference between a project and a program? 2

Project Kickoff Documents 2

Q5. What is the document that starts off a project called? 2
Q6. What are the main elements of a charter? 3
Q7. Why do PMs need a formal project charter? 4

Processes and Phases 4

Q8. What is meant by the terms project management processes and process groups? 4
Q9. What is the difference between a process and a phase? 5

The PMBOK® Guide and PMI 6

Q10. What is the PMBOK® Guide, and how can it help me as a project manager? 6
Q11. How can PMI help me in my career? 6
The Work of Project Management

Q12. What is a project management office, and how can it help PMs? 7
Q13. What job titles might I have as a project manager? 8
Q14. What is a project portfolio, and what is the role of a project portfolio manager? 9
Q15. What is the project sponsor’s role? 9
Q16. What are the key differences between project management in the past and in the present? 10
Q17. How can software assist PMs? 10

A Few More Key Management Fundamentals

Q18. If all projects have a start point and an end point, why is project management called an iterative process? 10
Q19. What is the Deming cycle? 12
Q20. What is agile project management, and how does it compare to or replace more traditional approaches, such as PMI’s? 13
Q21. What does the Japanese term kaizen mean, and why is it a central tenet of project management around the world? 14

Top Ten Pitfalls to Avoid when Starting a Project 14

CHAPTER 2 PROJECT PLANNING ESSENTIALS 17

Planning Basics 17

Q1. What are some general tips about project planning that help build in success? 17
Q2. What should be part of a modern PM’s planning toolkit? 18

Historical Information and Lessons Learned 19

Q3. What is historical information, and how does it help a PM with planning? 19
Q4. What are the two kinds of lessons learned that are used in planning? 19
Q5. Where can a PM find good historical information and lessons learned that he or she can apply to the current project? 21

How Organizational Factors Affect Planning 22

Q6. What are organizational process assets, and what are some examples that can help a PM in the planning stages? 22
Q7. What are enterprise environmental factors, and how can analyzing them help a PM make the right decisions? 22
The Baseline

Q8. What is the baseline, and how does it help prevent team members from working off of different versions of the plan? 23

Q9. When does the term baseline not refer to the entire project plan? 23

Q10. How do changes in plans affect the baseline? 24

Q11. I've heard that MS Project stores baselines for you. Is that the same kind of baseline? 24

The Project Plan

Q12. What exactly is meant by the term project plan, and what's the most important part of a project plan? 25

Q13. Besides the schedule, what are other key components of the project plan? 25

Q14. What is rolling wave planning, and why is it necessary for more complex projects? 25

Q15. How does progressive elaboration help a PM plan as thoroughly as necessary? 27

Pre-Planning

Q16. What is meant by pre-planning, or “planning the planning”? 28

Q17. What are the six early planning documents? 28

Q18. What “planning the planning” documents are used later in the planning process? 29

Top Ten Pitfalls to Avoid when Planning a Project 31

Chapter 3 From Requirements to Scope to the WBS 33

Preliminary PM Documents 33

Q1. Once I have a charter authorizing my project, am I ready to create the schedule and start assigning the work? 33

Q2. Why are all of these documents necessary? 34

Q3. How does the charter help the PM create the subsequent documents? 34

Q4. What is the purpose of a stakeholder register? 35

Requirements Gathering 35

Q5. What does a requirements document contain? 35
Q6. If I already have a requirements document, why is a requirements management plan necessary?  

Q7. What is a requirements traceability matrix, and how can it help a PM fulfill the project's requirements?  

Q8. What are recommended methods for effective requirements gathering?  

Q9. Which specific skills come into play for effective requirements gathering?  

Q10. What are the most effective group creativity techniques for eliciting requirements?  

Q11. How does a PM decide how to prioritize competing requirements?  

Scope  

Q12. What is a scope statement, and how does it differ from the requirements document?  

Q13. What is the difference between product scope and project scope?  

Q14. How can a PM use a scope management plan to help deliver the scope of the project?  

Q15. What is scope creep, and why is it so destructive (and yet so common) on projects?  

Q16. What is gold-plating in relation to scope creep?  

Q17. What are the best ways to avoid scope creep?  

Q18. What is the process of verifying scope?  

Q19. What are examples of the process of verifying scope?  

The Work Breakdown Structure  

Q20. What exactly is a work breakdown structure, and how does the scope statement get translated into the WBS?  

Q21. What are the key differences between a WBS and a project schedule?  

Other Documents: The WBS Dictionary and Scope Baseline  

Q22. What role does a WBS dictionary play in support of the WBS?  

Q23. What are the three components of the scope baseline, and why are the three taken together considered to be one artifact?  

Top Ten Pitfalls to Avoid in Going from Requirements to Scope to the WBS
CHAPTER 4 TIME MANAGEMENT: ESTIMATING AND COMING IN ON SCHEDULE

The Triple Constraint

Q1. What is the triple constraint, and how do PMs use it to complete their projects successfully? 51
Q2. Are there other accepted variations of the triple constraint? 53
Q3. What is a practical way PMs can apply the triple constraint to promote project success? 55

Estimation

Q4. What estimating techniques are recommended? 55
Q5. There are so many estimating methods—how can a PM choose the best one? 55
Q6. What if you have to develop an estimate by working backwards from a predetermined date? 59

Developing the Schedule

Q7. How does a PM turn a WBS into a project schedule, and what are the differences between the two documents? 60
Q8. Are intermediate steps taken or documents developed in between the WBS and the schedule? 60
Q9. What does a Gantt chart show, and why does it offer a better view of a project schedule than an activity list? 62
Q10. What does the network diagram show that is different from the Gantt view, and when is a network diagram helpful? 63
Q11. Is standard software available for building Gantt charts and network diagrams? 63

Dependencies

Q12. What is it called when one activity on a schedule must be done before another activity? 64
Q13. When does a mandatory dependency exist between activities? 64
Q14. When is a dependency considered discretionary? 65
Q15. What is the difference between a mandatory dependency and an external dependency? 65
Q16. What are the four types of dependency relationships that can exist between two tasks? 65
Schedule Compression and Resource Leveling

Q17. What is duration compression, and how can a PM accomplish it? 66
Q18. What is crashing the schedule? 67
Q19. What are the main drawbacks of crashing? 67
Q20. What is fast-tracking a schedule, and how does it differ from crashing? 68
Q21. What are the drawbacks of fast-tracking? 68
Q22. Is resource leveling a form of schedule compression? 69

The Critical Path Method

Q23. What is the critical path method (CPM), and why is it considered so important for project management? 70
Q24. How do you determine the critical path on a project? 70
Q25. Can there be more than one critical path? 70
Q26. What if there is a path that is almost as long as the critical path? 71

Float

Q27. What is float? 71
Q28. How is float calculated? 72
Q29. What is free float, and how does it differ from total float? 73
Q30. How are early start and early finish derived? 73
Q31. How is free float calculated? 74
Q32. Why are early finish and the free float calculation considered a forward pass, while deriving the total float is considered a backward pass? 75
Q33. When are the dates for late start and late finish useful? 75
Q34. How do early start, early finish, late start, and late finish fit in with critical path analysis? 76

Convergent Paths

Q35. What is meant by the term convergent paths on a schedule? 76
Q36. Are dummy activities the same as convergent activities? 78

Building Safeguards into the Schedule: Contingency, Delays, and Leads

Q37. What can PMs do to build extra time into a schedule in case unforeseen delays arise? 78
Q38. How is contingency reserve added into the schedule? 79
Q39. Contingency reserve sounds like padding. How are they different? 80
Q40. What if you need to build a delay into the schedule? 80
Q41. What if you want to allow an activity to start early, if possible? 81

Critical Chain Theory and the Theory of Constraints 82
Q42. Is there a more precise way to build safeguards into the schedule than the methods we've discussed? 82
Q43. How does Goldratt's theory of constraints further help PMs manage the schedule? 83

Top Ten Time Management Pitfalls to Avoid 84

CHAPTER 5 COST MANAGEMENT: CONTROLLING COSTS AND COMING IN ON BUDGET 87

Foundational Cost Concepts 88
Q1. Where are the biggest opportunities for managing costs on projects? 88
Q2. What's the key difference between cost efficiency and cost savings? 88
Q4. What are ways to achieve long-term results? 89
Q5. Is it ever OK to prioritize short-term over long-term results? 89
Q6. Where do PMs often go wrong trying to implement cost savings? 90

Managing Costs 91
Q7. What are sunk costs, and how do they sometimes influence PMs to make the wrong decisions? 91
Q8. What are opportunity costs, and how can you use this concept to make the best long-term choices? 91
Q9. What are variable costs versus fixed costs on projects, and how can understanding both kinds help PMs keep their costs down? 93
Q10. How do direct versus indirect costs relate to a project's budget? 93

PMI Cost Process I: Estimating Costs 94
Q11. How is the process of estimating costs connected to the various time-estimating and planning processes? 94
Q12. Why is cost estimating done as an iterative process, over several passes? 95
Q13. What are the five kinds of cost estimates and the expected accuracy ranges for each? 96
PMI Cost Process II: Determining the Budget

Q14. Why are the processes of estimating costs and determining the budget considered two separate processes? 96

Q15. What is cost aggregation, and how is it used in the process of determining the budget? 97

Q16. What is reserve analysis as it relates to cost? 97

Q17. What are the outputs of the process to determine the budget? 98

Q18. What is the technique of funding limit reconciliation? 98

PMI Cost Process III: Controlling Costs

Q19. What is earned value management, and how does it help PMs keep their projects on time and on budget? 99

Q20. What are the specific benefits of EVM for PMs? 99

Q21. What are the six things you need to know before you can use the EVM formulas? 100

The Earned Value Formulas

Q22. What is planned value? 101

Q23. Why is planned value expressed in dollars? 102

Q24. What is the difference between planned value and earned value? 102

Q25. Which earned value formulas use PV and EV as inputs, and what additional information do they provide about a project’s status? 103

Q26. How is schedule performance index calculated, and what does it tell you? 103

Q27. How is schedule variance calculated, and how does it differ from schedule performance index? 104

Q28. How is cost performance index calculated, and what does it tell you? 105

Q29. How is cost variance calculated, and what does it tell you? 105

Q30. Which are more valuable for PMs, the indexes (SPI and CPI) or the variances (SV and CV)? 106

Q31. What is the cumulative cost performance index formula, and what does it tell a PM that the regular CPI doesn’t? 107

Q32. When is cumulative CPI better than CPI? How do you know which one to use? 107

Q33. What is the estimate at completion formula, and how can it help me forecast my final budget more accurately? 108

Q34. How does estimate to complete complement estimate at completion, and what information does it add for PMs? 109
Q35. What does variance at completion, as opposed to estimate to complete, tell you? 109
Q36. What is the to-complete performance index, and how does it differ from the cost performance index? 110
Q37. How do the earned value formulas make a positive difference communications-wise on a project? 111
Q38. When is the best time to communicate EV figures, is there a recommended format, and how often should they be reported? 112
Q39. Is there a shortcut to doing all of this EV math? 113

A Few Key Cost and Accounting Concepts Used in Selecting Projects 113
Q40. What is the benefit cost ratio (BCR), and when is it used? 113
Q41. How does benefit cost ratio compare with return on investment? 114
Q42. How does payoff period come into play on project selection? 114
Q43. When is a short payoff period not advantageous? 115
Q44. When is a longer payoff period not advantageous? 115
Q45. How does the law of diminishing returns come into play on project selection? 116
Q46. What does economic value add bring to the table when you are evaluating the worth of a project? 118
Q47. What is value add as opposed to economic value add? 118
Q48. When you have to pick one, which wins: delivering a project on time or on budget? 119

Top Ten Pitfalls to Avoid in Cost Management 120

CHAPTER 6 BUILDING IN QUALITY 123

Fundamental Quality Concepts 124
Q1. Where does quality management fit in on the triple constraint? 124
Q2. How is quality management defined? 124
Q3. What else did Crosby contribute to quality management that PMs still study today? 125
Q4. How did Crosby express cost of quality as something that can be calculated, and how is this calculation useful to PMs today? 126
Q5. How is the cost of quality (COQ) used as a planning tool? 126
Q6. What other contributions is Joseph Juran known for? 127
Q7. What is W. Edwards Deming best known for, and which of his ideas are still in use today? 128
Q8. Besides the Deming cycle, what other major contributions did Deming make to quality management?  

Q9. What do today’s PMs still take from Walter Shewhart?  

Q10. Which of Genichi Taguchi’s contributions are still in use today?  

Q11. What contributions did Kaoru Ishikawa make?  

Anatomy of a Few Recent Quality Scandals: What Went Wrong and Lessons Learned  

Q12. What are the most useful lessons in quality control we can take from some of the biggest recent scandals in the business world?  

Q13. What is redundancy design, and why is it critically important for quality?  

Q14. What is redundancy testing, as opposed to redundancy design?  

Q15. What is just-in-time (JIT), and how does it translate to quality?  

Q16. How did Walmart’s single-point-of-sale system take JIT to a new level?  

Planning How You Will Design and Conduct Your Testing  

Q17. What are some ways to build better quality into your test planning?  

Q18. What are some recommendations for design of experiments?  

Q19. How does the concept of mutual exclusivity help with doing proper DOE?  

Q20. How does statistical independence figure into building test cases?  

Q21. How is benchmarking valuable for achieving quality testing and results?  

Best Practices for Quality Testing  

Q22. What are some best practices for quality testing itself?  

Q23. What exactly is automated testing?  

Q24. When is statistical sampling recommended over full-blown testing?  

Q25. How do you decide whether to go for zero defects in your testing or build in tolerance for a certain number of defects?  

Q26. What is Six Sigma quality, and how does it apply to testing?  

Q27. What is the difference between attribute sampling and variance sampling?  

Q28. In testing, what is meant by assignable cause versus random cause?  

Q29. How can grade factor into quality testing?  

Q30. What is the rule of sevens, and how is it applied in quality testing?
Q31. What's an example of a test case too complicated to be decided by simple attribute sampling versus variance sampling? 146
Q32. Why is it important to have a fully redundant test environment? 146

The Three PMI Quality Management Processes
Q33. What are the three PMI quality management processes, and how are they interrelated? 147
Q34. What does the PM do as part of the process of planning quality? 147
Q35. What are the key inputs, tools, and outputs commonly used in the process of planning quality? 148
Q36. What is the process improvement plan, and why is it a separate output from the quality management plan? 149
Q37. What is the difference between quality assurance and quality control? 149
Q38. What is the specific purpose of the process of performing quality assurance? 149
Q39. What is a quality audit looking for? 150
Q40. How is quality control performed? 150

The Basic Tools of Quality
Q41. What are the basic tools of quality, and how do they help PMs control quality on their projects? 151
Q42. Why are checklists the most basic and yet in some ways the most important of the tools of quality? 151
Q43. What are histograms, and how are they used in quality control? 152
Q44. What are Pareto charts, and when do PMs use them instead of traditional bar charts? 153
Q45. How are flow charts used in quality control? 153
Q46. When is a cause-and-effect diagram superior to a traditional flow chart? 154
Q47. When would a PM use a scatter diagram, and what are its characteristics? 154
Q48. When are run charts used? 156
Q49. What kind of data is best represented on a control chart, and why are control charts usually drawn with five parallel horizontal lines? 157
Q50. When is a quality process considered out of control? 158
Quality Certifications

Q51. Is there a certification for PMs specifically in quality management? 160
Q52. Are there ways to measure and certify quality on a company level? 160

Top Ten Quality Management Pitfalls 161

Answers to the Self Test at the End of A50 161

CHAPTER 7 CONTROLLING RISKS ON YOUR PROJECTS 163

Key Definitions and Terms 164

Q1. What are the definitions of risk and risk management as part of project management? 164
Q2. What skills do the best risk managers have? 164
Q3. What are some of the most common risks on a project, and what does risk management mean for each? 165
Q4. What is a very specific example of managing a risk? 165
Q5. Why is the definition of risk considered double-sided? 166
Q6. Why is risk management the most neglected area of project management? 167
Q7. With so many uncertainties in the world, how does a PM decide which risks to plan for? 167
Q8. What does it mean when risk managers talk about "known unknowns" versus "unknown unknowns," and how can a PM plan for both? 168

Reserve Analysis 169

Q9. What is reserve analysis? 169
Q10. What are contingency reserves on a project? 169
Q11. How do management reserves compare to contingency reserves? 170

Risk Planning 170

Q12. What are the key processes that a PM uses to plan for risks, and what are their outputs? 170
Q13. How does a PM get started creating the risk management plan? 171

Identifying Risks 172

Q14. How are the risks for a project identified, collected, and documented? 172
Q15. Are there any suggestions for getting reluctant team members to talk about risks on their parts of the project? 172
Q16. How should the risk questions be framed to get more participation? 172
Q17. What does the risk breakdown structure look like, and how does it help the PM create an effective risk register? 174
Q18. What is the risk register, and what are its key components? 175

Responding to Risks 177
Q19. What is a contingency plan? 177
Q20. What is a backup plan, and how does it differ from a contingency plan? 178
Q21. What can a PM do if neither the contingency plan nor the backup plan work? 178
Q22. When is the process of planning risk responses performed, and what is the name of the output? 179

Risk Analysis 179
Q23. What exactly is meant by qualitative risk analysis? 179
Q24. How do probability and impact come into play in the qualitative risk management process? 180
Q25. How are these probability and impact numbers used in a formula? 180
Q26. When and how does the risk register evolve into a probability and impact matrix? 180
Q27. How does quantitative risk analysis differ from qualitative risk analysis? 181
Q28. What is expected monetary value, and how is it used in quantitative risk analysis? 182
Q29. How does the PM complete the next fields in the risk register, cost of contingency plan and cost of backup plan? 183
Q30. What is the purpose of the field in the risk register “Project or company’s strength for handling the risk,” and how is it used? 183
Q31. The next four fields in the risk register all look pretty straightforward. Are there any special points to be aware of? 184
Q32. What is a risk trigger, and how is documenting it helpful to the RM process? 185
The Last Risk Process: Monitoring and Controlling Risks
Q33. What is the process of monitoring and controlling risks, and when is it performed? 185

Q34. What are the four strategies for dealing with negative risks (threats)? 186
Q35. What are the four strategies for dealing with positive risks (opportunities)? 186
Q36. What are secondary risks, and how do they relate to risk strategies? 186
Q37. What are residual risks? 187
Q38. How do SWOT analysis and the SWOT diagram help a PM make risk-related decisions? 189
Q39. How can Monte Carlo tools help the PM with risk management? 190
Q40. What is the correlation between assumptions and risks? 190

Top Ten Project Risk Management Pitfalls

CHAPTER 8 PROCUREMENT AND CONTRACTS

Procurement
Q1. What are the keys for a successful procurement on a project? 193
Q2. What are the keys for successfully managing the legal side of a project? 194
Q3. What is a recommended approach for working with vendors on contracts? 195
Q4. Why is it critical for a PM to push the legal department for a win-win negotiation? 195
Q5. From a procurement/contracts perspective, what are some of the most favored best practices today for saving money on projects? 196

Contracts and Contract Types
Q6. What is the definition of a contract, and what makes for a good contract? 196
Q7. What exactly is a concession on a contract? 197
Q8. What are maintenance and expenses on a contract? 198
Q9. What is a boilerplate contract? 198
Q10. Does the PM need to be concerned about the specific contract type, or is that best left to the lawyers? 198

Q11. What are the two main categories of contract types usually used on projects, and which are lower risk for the buyer versus the seller? 198

Q12. What are the most common contract types within the fixed-price and cost-plus categories? 199

Q13. Why is the time and materials contract in its own category? 200

The Statement of Work

Q14. What is a statement of work (SOW)? 201

Q15. What are the three common types of SOW? 201

Q16. How does an SOW differ from a contract? 202

Bidding and Evaluation

Q17. What does a PM need to know about the bidding process? 202

Q18. What is a sealed bid, and when is it useful in the bidding process? 203

Q19. How do PMs create evaluation criteria, and what are weighted evaluation criteria? 204

The Buy-or-Build Decision

Q20. What is buy-or-build analysis, and what are the most significant factors in a PM's decision to buy or build? 204

Q21. What are the benefits of building as opposed to buying? 205

Q22. What are the benefits of buying as opposed to building? 205

Q23. Why is there lower risk in many ways when buying from a vendor, rather than building your own product? 205

Q24. How does corporate culture figure into buy-or-build decisions? 206

Q25. Why are historical information and lessons learned especially useful when making a buy-or-build decision? 206

Q26. How can the expected monetary value (EMV) formula help a PM make and justify a buy-or-build decision? 206

Q27. How can a decision tree help a PM make decisions, and how can EMV be used to build a decision tree? 208

Sole Source versus Single Source Procurement

Q28. What is sole source procurement, and how should it factor into a PM's procurement decision-making process? 210

Q29. What is single source procurement? 210
Proposals and Related Documents

Q30. What is a proposal in the PM world?

Q31. What exactly is a request for proposal, and when and how does a PM use it?

Q32. When would a PM use a request for information (RFI) instead of an RFP?

Q33. Under what circumstances would a request for quotation (RFQ) be best?

Q34. When does RFQ mean request for qualifications, and which industries use it that way?

A Few More Key Terms and Concepts

Q35. What kind of companies use a preferred or select sellers list, and how does a vendor get onto the list?

Q36. What is exactly is meant by performing due diligence?

Q37. What is a dispute resolution system (DRS) clause, and how can it help a PM avoid lawsuits?

Legal Documents and Terms PMs Should Know About

Q38. What is a service level agreement (SLA)?

Q39. What is an enterprise-wide license agreement (ELA)?

Q40. What is a nondisclosure agreement (NDA)?

Q41. When is a letter of intent (LOI) needed?

Q42. What is the point of total assumption (PTA), how can it help the buyer, and what is the formula for calculating PTA?

Q43. What is a source escrow clause, and when is it worth fighting to get one into your contract?

Q44. What is the legal concept of privity, and how can PMs apply it to projects?

Project Closeout

Q45. What are keys for successfully closing out a project on the legal end?

Q46. What are requirements for closing out procurements on the customer side?

Q47. What are the requirements for closing out procurements on the seller's side?
Q48. What is a buyer-conducted performance review, and how does it help the customer? 221
Q49. Is offering to be a reference for a vendor considered a best practice? 221
Q50. What is a procurement audit, and how can it help a PM's company? 222

Top Ten Pitfalls in Procurements and Contracts on the Customer Side 222
Top Five Pitfalls to Avoid on the Seller's Side 223
Top Five Pitfalls to Avoid on Both the Buyer's and Seller's Sides 224

CHAPTER 9 ETHICAL CONSIDERATIONS PMs FACE ON THE JOB 225

Ethics in Project Management 226
Q1. How is the term ethics defined in the project management world? 226
Q2. What are examples of real-world ethical challenges PMs face? 226
Q3. Where do ethics fit in within the PM knowledge areas and processes? 227
Q4. Does PMI attempt to enforce its code of ethics, or does it just encourage ethical behavior? 227
Q5. What exactly is covered in PMI's Code of Ethics and Professional Conduct? 228
Q6. When can behavior be legal but unethical? 228
Q7. How should ethics affect the core decisions a PM needs to make on the job? 230
Q8. Should a PM's loyalty be to the customer or to his or her own company? 231
Q9. Could the customer, the project, and the company be thought of as an “ethical triple constraint”? 231
Q10. What are some examples of how one element of the ethical triple constraint can affect the others? 232
Q11. What is careerism? 232
Q12. What if a person's personal ethics conflict with a company's mission or values? 233
Managing Others' Expectations Ethically

Q13. What's wrong with putting the customer first? 233
Q14. How can I say no to the customer when necessary? 234
Q15. What can I do if the customer refuses to take no for an answer? 234
Q16. What if I work for the client, and my firm is trying to get me to take unfair advantage of the performing organization? 235

Escalation, Whistle-Blowing, and Ethics Boards

Q17. What if my own management refuses to accept a no from me, the PM? 235
Q18. Is there a right way to escalate when necessary? 236
Q19. What exactly is whistle-blowing, and is it ever a good idea? 237
Q20. What about snitching? 237
Q21. What is an ethics board, who sits on such a board, and when should a PM or other employee approach an ethics board? 238
Q22. What could be wrong with an open-door policy? 239

Unethical Behavior

Q23. What is lying by omission, and is it really lying? 239
Q24. What is a non-apology apology, and why is it unethical? 240
Q25. What exactly is doubletalk, why is it used, and why is it considered unethical? 240
Q26. What is greenwashing? 241

Avoiding Unethical Behavior

Q27. What is disclosure in the PM world? 241
Q28. What does it mean to recuse oneself from a project, and why and when is it done? 242
Q29. What is meant by the term appearance of impropriety? 242
Q30. What is a conflict of interest in the business world, and how can they be avoided? 243

Other Ethical Considerations

Q31. What is the difference between a bribe and a kickback? 243
Q32. Is it all right to use bootleg copies of software on a project? 244
Q33. Can I use materials I created at my old company at my new company? 244
Q34. Are there special ethical considerations in bidding situations? 245
Q35. What is xenophobia, and how is it expressed in communications on projects? 245
Q36. What are microinequities, and how do they relate to xenophobia? 246
Q37. Just to review the ethical issues we've discussed, how many ethical violations were apparent in the subprime mortgage crisis? 246

Creating an Ethical Workplace 247
Q38. What can I do to improve my company’s ethics? 247
Q39. Should project team members ever work for free? 247
Q40. What can a PM do to foster good ethics on his or her projects? 248

Top Ten Ethical Pitfalls 249

CHAPTER 10 COMMUNICATION SKILLS FOR PMs 251

Listening Skills and Emotional Intelligence 252
Q1. What is effective listening? 252
Q2. What is active listening, and how does it improve the communication process? 252
Q3. What are some examples of active listening through verbal methods? 252
Q4. What is commit-to listening, and how is it applied in practice? 253
Q5. Why is noise considered a barrier to communications? 253
Q6. What is empathic listening, and how can it help in communications? 254
Q7. How can an awareness of paralingual vocal qualities help PMs hear between the words and foster better listening? 254
Q8. What is emotional intelligence, and how is it related to listening skills? 256

The PMI Communications Management Processes 257
Q9. What are the five communications management processes discussed in the PMBOK® Guide? 257
Q10. What is the purpose of the stakeholder register, and when is the stakeholder identification process executed? 257
Q11. What is a communications management plan, and what should it include? 258
Q12. What does the process of distributing information cover? 259
Q13. What are performance reports and the process of reporting performance, and how does that process differ from distributing information? 260
Q14. What is the PMI process of managing stakeholder expectations? 260
Q15. Why should I bother sending a note to say I'll be sending a note? 261

Communicating with Stakeholders

Q16. What did communications expert Marshall McLuhan mean when he wrote, "The medium is the message," and how can PMs benefit from this idea? 262
Q17. How can I decide whether formal or informal communication channels are most appropriate for my message? 263
Q18. What does the term *proxemics* mean, and what is its role in communications? 263
Q19. What is the communication channels formula, and why do PMs use it to plan communications on a project? 264
Q20. What communication secrets can we learn from alpha project managers—the top PMs? 265

Using Communication Technologies

Q21. How can electronic communications cause management problems? 265
Q22. When is multitasking counterproductive to effective communication? 266
Q23. Is marking emails "urgent" or "confidential" worthwhile? 266
Q24. Why are communication technologies such as teleconferencing and videoconferencing sometimes counterproductive? 267

Agreement and Diplomacy

Q25. Why did interpersonal relations pioneer Dale Carnegie write, "Never say, 'You're wrong!'"? 267
Q26. Why should I pretend to agree if I really don't agree? 268
Q27. Can people learn to be more diplomatic? 269
Q28. What is the concept of *no blame, no shame*? 270
Q29. What is the best way to handle my own personal mistakes? 270
Q30. What is going for a *win-win*? 270

Communication Practices to Avoid

Q31. What is *spin* in the PM world? 271
Q32. Is it all right to tell a white lie to spare a team member's feelings? 271
Q33. What exactly is triangulation, and why is it a poor strategy for resolving conflict? 272
Q34. How does passive-aggressive behavior affect projects? 272
Q35. Is it ever OK to share confidential information in an effort to bond with a client or coworkers? 273
Q36. What is meant by false balance, and how can it harm a project? 273
Q37. How can drawing false parallels get in the way of a positive discussion? 274
Q38. What is arguing in bad faith, and why is it dangerous? 274

Top Ten Written Communication Pitfalls 275

Top Ten Face-to-Face Communication Pitfalls on Projects 276

CHAPTER II MANAGING YOUR HUMAN RESOURCES 277

Project Management Environments 277
Q1. How do project management work environments differ? 277
Q2. What are the three standard PM environments? 278
Q3. What are the key characteristics of a functional environment? 279
Q4. At the other end of the spectrum, what are the characteristics of a projectized environment? 279
Q5. What are the characteristics of a matrix environment? 280

Human Resources Management Processes 281
Q6. What are the four HR management processes? 281

Developing the Human Resources Plan 281
Q7. What are the key inputs to the process of developing the human resources plan? 281
Q8. What are the key outputs of the process of developing the human resources plan? 281
Q9. How are organization charts used on projects? 282
Q10. What is a RAM matrix, and when is it more useful than an org chart? 282
Q11. How can a RACI chart be customized? 283
Q12. What is a staffing management plan, and how does it fit in as a part of the human resource plan? 284
Q13. What is a resource histogram, and how can it help the PM plan how to staff a project? 284
Q14. What is a release plan, and how can it help the PM wrap up a project? 285
Q15. What additional planning needs to be done for virtual teams? 285

Acquiring the Team
Q16. What are the two biggest barriers to acquiring the right team? 286
Q17. What are some best practices for interviewing? 287
Q18. What are some best practices for working with recruiters to help staff a project? 288
Q19. Are there best practices for creating job specifications? 288
Q20. Are there best practices for advertising PM positions? 289
Q21. How do negotiation and influencing skills come into play when acquiring a team? 289
Q22. Do you know your company's protocol for working with recruiters? 289
Q23. What is resource preassignment? 290
Q24. What outputs, other than hiring the team members, are created from the process of acquiring the project team? 290
Q25. Which parts of the project plan should be updated as staff are hired? 291

Developing the Project Team
Q26. What are the expected stages of team development? 291

Motivational Theories in Project Management
Q27. What are considered best practices for motivating staff today? 292
Q28. How does Maslow's hierarchy of needs apply to managing project teams? 293
Q29. What did Maslow mean by the need for self-actualization, and how can managers help their people rise to that level? 294
Q30. How does Herzberg's theory of hygiene and motivational factors depart from Maslow's theory? 294
Q31. How can an awareness of McGregor's motivational theory help PMs better manage and motivate their people? 295
Q32. What is Fielder's contingency theory, and how does an awareness of contingencies help a PM better motivate his or her people? 296
Q33. What is the expectancy theory, and what do PMs need to know about employees’ expectations? 297
Q34. What is the achievement theory, and why is the need to achieve only one of three parts of the theory? 298

Team-Building and Awards
Q35. What are some highly effective team-building activities PMs can try? 299
Q36. What are best practices for giving awards to motivate people? 299

The Five Forms of Power in Project Management
Q37. What are the five recognized forms of power available to a PM, and which are considered the most positive? 301
Q38. What is expert power, and why is it considered a highly favorable form of power? 301
Q39. What is reward power? 302
Q40. What is meant by a PM’s having legitimate power? 303
Q41. What is referent power? 303
Q42. Is punishment power good, bad, or both? 304

Managing Conflict
Q43. What is the single best way to manage conflict on projects? 304
Q44. When is compromise not a good thing? Shouldn’t everyone be willing to compromise? 305
Q45. What is forcing, and why is it so common if it’s not a recommended technique? 306
Q46. Why isn’t withdrawal a recommended method of conflict management? 306
Q47. What is smoothing, and why is it considered uninspiring, unproductive, and uncool? 307

Team Roles
Q48. What personality traits make for positive team roles? 307
Q49. What roles on a project are negative, and are any partially negative and partially positive? 309

Top Ten Human Resources Pitfalls for PMs to Avoid 310
 CHAPTER 12 LEADERSHIP BEST PRACTICES

Sustainability

Q1. What is sustainability, and why are companies moving in this direction as part of an overall leadership strategy?

Q2. When is using green processes not the same as having a sustainability strategy?

Q3. What is zero environmental footprint, and how does it apply to sustainability?

Elements of Leadership

Q4. What key area is often neglected when PMs communicate to stakeholders about the status of the project?

Q5. What is meant by strategic versus tactical, and how can PMs be more strategic?

Q6. What are the key differences between management and leadership?

Q7. What are four-color assessments, and are they important for PMs?

Q8. What kind of leadership do project teams need at the beginning of a project?

Q9. How does a PM’s role as a leader evolve on a project, and where does flexibility come into play?

Q10. What is the value triple constraint, and how can this concept help leaders improve project success?

Fostering a Positive PM Environment

Q11. What are ways to foster a productive work environment?

Q12. What can PMs do to instill a customer-service attitude in their team members?

Q13. How can a PM foster a lessons-learned environment?

Q14. How can I influence the PM environment to make sure my people behave ethically?

Q15. What is meant by the term safe-to-say environment, and how does a safe-to-say environment work?

Q16. How can I implement a “bring solutions, not problems” strategy?

Q17. What are some ways to encourage creativity among my team members?

Reviewing Performance

Q18. Why are performance reviews necessary on projects?
Q19. What are some tips on giving performance reviews? 325
Q20. Do 360 reviews really add value, and what's the best way to administer them? 325

Managing Low-Performing Employees 327
Q21. Why is “hire slow, fire fast” a highly recommended rule of thumb for PMs? 327
Q22. Where should I draw the line when trying to save a low-performing employee? 328
Q23. Is a probation period worthwhile and recommended when a PM is considering terminating an employee? 328

Meetings 329
Q24. What's the biggest danger of having too many go-around-the-room status meetings? 329
Q25. If status meetings are no longer considered a best practice, which meetings are considered necessary? 329
Q26. What is a stand-up meeting, and is it really better than the old-school sit-down meeting? 329

Mentoring and Training 330
Q27. What is mentoring in a project management context? 330
Q28. What are some recommended mentoring methods? 331
Q29. What is the key to effectively training team members? 332
Q30. What is a recommended approach for selecting the right training method for team members? 332
Q31. What's the single biggest mistake PMs make in the way they try to train their people, and what can they do to fix it? 333
Q32. When is out-of-the-box training necessary? 334

Presentations 335
Q33. What are the key mistakes PMs make when trying to use PowerPoint or similar tools to make presentations to the team? 335
Q34. When is PowerPoint not the best tool for a presentation? 336
Q35. What are some guidelines for using graphics in presentations? 337

Collocation 337
Q36. What is collocation, and what are the benefits? 337
Q37. What are the drawbacks of collocation?
Virtual Teams

Q38. How should I decide if virtual teams are the way to go for my project? 338

Q39. What special planning is needed before deciding to use a virtual team? 339

Management and Leadership Problems

Q40. What is the danger of managing by memo? 340

Q41. What is shunning in the PM world, and how can it be handled? 340

Q42. What is the red-ink mentality, and what can be done to prevent employees from engaging in red-ink behavior? 341

Q43. What is the "who gets it next" attitude on a project team? 341

Q44. What is a bottleneck, and how can a PM handle bottlenecks from a leadership perspective? 342

Q45. What can the PM do if he or she is assigned a team member who doesn’t want to work hard? 342

Q46. How can a PM try to avoid what is called a void of leadership? 343

Q47. How can I combat the dreaded "not invented here" (NIH) philosophy? 344

Q48. When is consensus-driven management a bad thing? 344

Q49. When is bureaucracy a double pitfall for leaders? 345

Q50. What can happen if there is too much corporate message? 346

Q51. What are bright spots, and how can leaders use this concept to improve a project team or work environment? 346

Q52. What is an inflection point, and how can leaders use this concept to their advantage? 347

Top Ten Pitfalls to Avoid in Leadership

CHAPTER 13 HOW TO BECOME PMP® CERTIFIED 349

The Basics

Q1. What exactly is PMP® certification, and why is it considered so valuable today? 350

Q2. What are the prequalifications required for the PMP® certification? 351

Applying to Take the PMP® Certification Exam

Q3. How long does the application process take, and how long does it take to hear back from PMI that a candidate has been accepted to take the exam? 352
Q4. Does PMI do a detailed review of every applicant's background, references, and projects? 352
Q5. What are the main parts of the PMP® certification application process? 353
Q6. What is involved in documenting your project hours? 354
Q7. What are some suggestions for documenting the projects you've worked on in the application? 355
Q8. Should the emphasis be on how successful the project was or on its size, cost, or some other factor? 356
Q9. What if a project is still ongoing or ended without ever being completed? 356
Q10. What is the total cost of the application and certification process? 356

Other Project Management Certifications 357
Q11. What are the other kinds of PM certification from PMI, and how does an applicant choose the one that's best for him or her? 357
Q12. Which are the most valuable certifications for PMs from other certifying bodies? 358

About the PMP® Exam: Logistics and Tips 362
Q13. How long is the PMP® exam, and what is the format? 362
Q15. Is it true that not all 200 questions on the exam are counted? 364
Q16. Are candidates allowed to take breaks while taking the test? 364
Q17. Can you bring snacks or beverages to the test? 365
Q18. Can I bring my own calculator? 365
Q19. Are translations of the test offered in other languages? 365
Q20. Do you have any advice on scheduling the test? 366
Q21. Is guessing on the test recommended? 366
Q22. Are there any other tips about the logistics of the test? 367
Q23. What is a brain dump, and how does it help a test taker? 367
Q24. Are there any other strategies for the test? 368
Q25. Are there any special recommendations regarding the ethics-based questions? 369

Preparing for the PMP® Certification Exam: Prep Classes and Other Resources 369
Q26. Is a class necessary for preparing for the test? 369
Q27. How do students decide what kind of PMP® class to take? 370
Q28. Does the duration of PMP® prep courses vary? 371
Q29. Is there a standard structure for PMP® prep courses? 371
Q30. Can PMP® study groups substitute for a class? 372
Q31. What books can help me prepare for the PMP® test? 373

Studying for the PMP® Certification Exam 373
Q32. How much study time is recommended between completing a PMP® prep class and taking the exam? 373
Q33. Is it recommended to drill on practice questions, and if so, which quiz sources are best? 373
Q34. How will I know when I’m ready for the PMP® certification exam? 374
Q35. Any more tips about studying for the ethics-based questions on the PMI exams, which are known to be tricky? 374
Q36. What are some tips for learning the formulas for the test? 375
Q37. How about tips for memorizing the processes? 376
Q38. How about tips for memorizing the process groups and knowledge areas? 376
Q39. How can I learn the many inputs, tools, and outputs of the PMI processes? 377
Q40. How about advice for remembering all of the documents and artifacts? 378
Q41. Any final advice for preparing for the test? 378
Q42. How can I stay sharp in between my PMP® prep class and the time I take the test? 378
Q43. Are there any tips for job hunting if I haven’t taken the test yet? 379

Top Ten Pitfalls to Avoid in the PMP® Certification Process and on the Exam 379

FINAL WORDS 381

APPENDIX A NETWORKING TIPS AND SOCIAL MEDIA FOR PMs 383
Top Ten Networking Pitfalls 384
PM-Specific Social Networking and Educational Sites 385
<table>
<thead>
<tr>
<th>Contents</th>
<th>xxxv</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APPENDIX B THE FORMULAS PMs NEED TO KNOW FOR CERTIFICATION EXAMS</strong></td>
<td>391</td>
</tr>
<tr>
<td>Formulas, Knowledge Areas, and Processes</td>
<td>391</td>
</tr>
<tr>
<td>Formulas, Knowledge Areas, and Processes: Fill-in-the-Blanks Version</td>
<td>393</td>
</tr>
<tr>
<td><strong>APPENDIX C QUICK STUDY SHEET FOR THE PROCESSES COVERED ON THE PMP® EXAM</strong></td>
<td>397</td>
</tr>
<tr>
<td>PMP® Processes Grid</td>
<td>398</td>
</tr>
<tr>
<td>PMP® Processes Grid: Fill-in-the-Blanks Version</td>
<td>401</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY</strong></td>
<td>403</td>
</tr>
<tr>
<td><strong>INDEX</strong></td>
<td>407</td>
</tr>
</tbody>
</table>