

ELEVENTH EDITION

PROJECT MANAGEMENT **WORKBOOK**

and PMP®/CAPM® EXAM STUDY GUIDE

Supplements Harold Kerzner's bestselling book
*Project Management: A Systems Approach to Planning,
Scheduling, and Controlling, Eleventh Edition*

For the latest PMP®/CAPM® Exam

Completely updated and aligned with PMI's
PMBOK® Guide, Fifth Edition

HAROLD KERZNER, Ph.D.
FRANK P. SALADIS, PMP

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and PMP®/CAPM® Exam Study
Guide**

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Eleventh Edition

Harold Kerzner, Ph.D.
Frank P. Saladis, PMP

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PREFACE

The purpose of this workbook is to provide students of project management with meaningful exercises and homework problems that will enhance the knowledge of the subjects included in the textbook *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*, Eleventh Edition by Harold Kerzner.

The material in this workbook is directly related to the subject and knowledge areas associated with the Project Management Institute® Project Management Professional PMP® Exam and the Certified Associate Project Manager CAPM Exam and will provide a sound framework for exam preparation.

The workbook is designed to engage the student in activities that will provide practical application of the concepts of project management as described in the textbook and in the *PMI® Guide to Project Management Body of Knowledge (PMBOK® Guide)*—Fifth Edition.

Included in this workbook are topic specific glossaries, common project terms and acronyms, knowledge area summaries, examples of typical project management mathematical formulas and equations, key project terms and enjoyable crossword puzzles. The workbook also includes PMP® Exam study tips, situational exercises, and sample questions designed to simulate the type of questions that may be encountered on the actual PMP® exam.

We hope you will find this book enjoyable and educational.

**Project Management Workbook
and PMP®/CAPM® Exam Study
Guide**

Chapter One

PROJECT MANAGEMENT OVERVIEW

Project management is not a new concept. It has been practiced for hundreds, even thousands of years. Any undertaking, large or small, requires a goal, a set of objectives, a plan, coordination, the management of resources, and the ability to manage change. Additionally, every project requires leadership. Project managers work with teams and a variety of stakeholders and must develop the skills to balance the expectations and demands of each stakeholder.

Today, project management has become a very formal methodology, and many organizations have adopted a “management by projects” approach. Some organizations have established Project Management Offices (PMOs) to assist them in developing standards for managing projects and processes to ensure that these standards are followed. As the project management discipline continues to evolve, organizations around the world are experiencing the benefits of project management. These benefits include better scheduling of resources, improved estimating, higher quality, early identification of issues and problems, and more effective measurement processes to assess success.

Projects are defined as temporary endeavors with specific start and end dates, and they are initiated to provide or produce a unique product or service. Project management is the application of knowledge skills, tools, and techniques to project activities to meet project objectives. Effective project management is accomplished through the application and integration of project management processes that will assist in the initiation, planning, execution, monitoring, controlling, and closing of a project. These processes also apply to the management of each phase of a project. A project manager is assigned to a project and becomes accountable for the success of the project through effective management techniques, coordination between functional organizations, and the ability to apply the appropriate amount of managerial and cross-organizational support and guidance as the project is executed.

Glossary of terms Key project management terms and definitions to review and remember. The discipline of project management includes a lexicon that is widely used in most industries and it is beneficial to learn the “language” of the professional project manager.

Deliverable A tangible, verifiable work output. Project work will generally produce multiple deliverables that will comprise the final project deliverable.

Functional Manager Generally, the manager who “owns” or supervises the resources that will be assigned to project activities. Functional managers are considered to be the technical experts and usually provide information about resource requirements, task duration, schedule development and cost estimates. Project managers engage the assistance of functional managers (also known as line managers) to develop the project plan and subsidiary project plans.

Non-Project Driven Generally, these organizations do not have a project methodology in place, are not organized around the delivery of projects, and are arranged in a functional, organizational structure. Work is generally associated with manufacturing and production lines. Projects are established as needed to improve or support functional lines and activities or organizational changes.

Program A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them separately. Generally, projects in a program are interrelated.

Project A temporary endeavor undertaken to create a unique product, service, or result. A project has a specific objective, defined start and end dates, and funding limitations. Projects consume resources including human (labor), equipment and materials. A project is generally multifunctional or cross-organizational in nature.

Project Driven Organization Also known as “project based.” In these organizations all work is characterized through projects. Projects are arranged as separate cost centers and the sum of all project work is associated with organizational goals and strategic objectives.

Project Management Application of knowledge skills, tools, and techniques to project activities to meet project requirements. Project management involves the utilization of the 5 major process groups: initiation, project planning, executing, monitoring and controlling, and closing. These processes are applied to each project phase and enable the project manager to effectively integrate the 10 project management knowledge areas described in the Guide to the Project Management Body of Knowledge® developed by the Project Management Institute or PMI®.

Project Sponsor Generally, described as the person or organization that authorizes the project and provides the financial resources required to plan, execute, and deliver the project objectives.

Triple Constraint A framework for evaluating the effects of changes to the competing project demands of Time (schedule), Cost (budget), and Scope (specifications) usually depicted as a triangle. Specifically, the Triple constraint emphasizes that a change to any one side or element will have an effect on the other elements. The Triple Constraint was considered to display the key factors that define project success. Today, project success is defined using several success factors including quality, value added, and fitness for use. These factors may be referred to as competing constraints or competing demands.

Activities, Questions, and Exercises

Refer to Chapter One of *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* (11th Edition) for supporting information. Review each of the following questions or exercises and provide the answers in the space provided.

1. Dr. Kerzner’s 16 Points to Project Management Maturity

1. Adopt a project management methodology and use it consistently.

2. Implement a philosophy that drives the company toward project management maturity and communicate it to everyone.
3. Commit to developing effective plans at the beginning of each project.
4. Minimize scope changes by committing to realistic objectives.
5. Recognize that cost and schedule management are inseparable.
6. Select the right person as the project manager.
7. Provide executives with project sponsor information, not project management information.
8. Strengthen involvement and support of line management.
9. Focus on deliverables rather than resources.
10. Cultivate effective communications, cooperation, and trust to achieve rapid project management maturity.
11. Share recognition for project success with the entire project team and line management.
12. Eliminate nonproductive meetings.
13. Focus on identifying and solving problems early, quickly, and cost effectively.
14. Measure progress periodically.
15. Use project management software as a tool, not as a substitute for effective planning or interpersonal skills.
16. Institute an all-employee training program with periodic updates based on documented lessons learned.

This exercise is intended to provide you with a basis and understanding of the major goals of an enterprisewide project management methodology and process for improvement. The 16 Points to Project Management Maturity are designed to assist an organization in achieving continuously higher levels of project performance by providing a baseline for assessing the current level of project management maturity and then developing steps to enhance existing processes and/or create new processes that will improve overall project performance.

Exercise: Review Dr. Kerzner's 16 points to project management maturity and identify the specific benefits associated with each point. Identify actions that may be taken to introduce, implement, or further enhance the value of each of the listed points in an organization.

Example:

1. Adopt a project management methodology and use it consistently.

Action: Provide management with supporting information about how project management can assist in achieving organizational objectives. Obtain best practices documentation from companies that are actively using project management processes and methodologies and provide a summary to executive management.

2. Implement a philosophy that drives the company toward project management maturity and communicate it to everyone.

3. Commit to developing effective plans at the beginning of each project.

4. Minimize scope changes by committing to realistic objectives.

5. Recognize that cost and schedule management are inseparable.

6. Select the right person as the project manager.

7. Provide executives with project sponsor information, not project management information.

8. Strengthen involvement and support of the line management.

9. Focus on deliverables rather than resources.

10. Cultivate effective communications, cooperation, and trust to achieve rapid project management maturity.

11. Share recognition for project success with the entire project team and line management.

12. Eliminate nonproductive meetings.

13. Focus on identifying and solving problems early, quickly, and cost effectively.

14. Measure progress periodically.

15. Use project management software as a tool, not as a substitute for effective planning or interpersonal skills.

16. Institute an all-employee training program with periodic updates based on documented lessons learned.

2. Describe how the use of a project management methodology may benefit an organization, impact organizational success, and assist in the achievement of strategic objectives.

3. What are three key factors that are commonly used to indicate project success?

- 1.

- 2.

- 3.

4. What additional factors may be considered to more effectively and reliably indicate successful completion of a project?

- 1.

- 2.

- 3.

- 4.

- 5.

- 6.

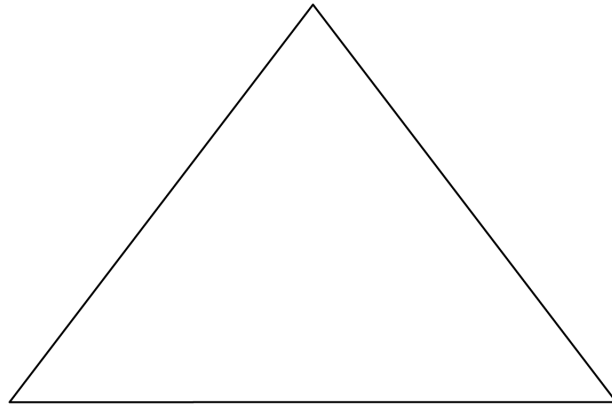
- 7.

- 8.

5. In many organizations the organizational structure itself may create internal communications barriers, management gaps, functional gaps, and operational islands. These gaps and barriers may result in conflicts, inefficiencies, and lower productivity. Describe some of the causes of these gaps and how the gaps can be effectively minimized.

6. Describe the term *stakeholder* and provide examples of the stakeholders associated with projects you are engaged in.

7. This diagram is commonly used to illustrate the relationship of three key elements of project success. Consider the term “Triple Constraint” and label each side of the diagram (Figure 1-2).



8. What is the significance of the diagram as it relates to the competing demands of a project?

9. Describe at least three additional factors that may influence a customer’s perception of project success.

10. Explain why establishing a good daily working relationship with functional managers and/or line managers is important to project success and is a critical responsibility of the project manager.

11. Explain the term *integration* as it relates to project management and describe the major roles and responsibilities of the project manager during project planning and execution.

12. Define the typical roles of the functional manager and describe at least three challenges that a functional manager may encounter in an organization that engages in the management of multiple projects.

13. How can a project manager ensure that he or she establishes and maintains an effective and collaborative relationship with the project sponsor or project executive?

14. Causes and effects. Although all projects are unique, there are many common issues that are experienced by project managers and teams. Referring to the list of causes and effects, match two causes (only 2) to each effect and explain why the two were chosen.

Causes:

- a) Top management does not recognize the activity as a project
- b) Too many projects going on at the same time
- c) Impossible schedule commitments
- d) No functional input into the planning phase
- e) No one person responsible for the total project
- f) Poor control of design changes
- g) Poor control of customer changes
- h) Poor understanding of the project manager’s job
- i) Wrong person assigned as project manager
- j) No integrated planning and control
- k) Company resources are overcommitted
- l) Unrealistic planning and scheduling
- m) No project cost accounting ability
- n) Conflicting project priorities
- o) Poorly organized project office

Effect		Explanation
1. Late completion of activities	Cause #1	
	Cause #2	
2. Cost overruns	Cause #1	

Effect		Explanation
	Cause #2	
3. Substandard performance	Cause #1	
	Cause #2	
4. High turnover in project staff	Cause #1	
	Cause #2	
5. High turnover in functional staff	Cause #1	
	Cause #2	
6. Two functional departments performing the same activities on one project	Cause #1	
	Cause #2	

15. In addition to the roles of integrator and coordinator, describe other roles and responsibilities the project manager is expected to perform:

- 16.** Project managers are often challenged to influence functional managers who may have multiple projects to deal with and may be forced to compete with other project managers in the same organization for resources. Explain how the project manager can improve relationships with functional managers and influence them to provide the necessary resources to achieve the project manager's objectives.

- 17.** The relationship between the project manager and the project sponsor or executive is a critical factor and can mean the difference between project success and failure. What actions can be taken by the project manager to ensure that a strong and supportive relationship exists between the project manager and the project sponsor?

- 18.** According to the *PMBOK® Guide – Fifth Edition*, a project is defined as:

- 19.** The 47 project management processes included in the 10 project knowledge areas described in the *PMBOK® Guide – Fifth Edition* comprise the 5 major process groups. The 5 major process groups are:

- 20.** In any organization that accepts and utilizes a project management methodology the project manager is often faced with several obstacles that must be overcome to achieve the desired performance benefits. Describe at least three of these obstacles and provide suggestions for overcoming them.

Kerzner “Quick tips” for the Project Management Institute PMP® and CAPM® EXAM

The information in Chapter One is most closely related to the following topics in the *PMBOK® Guide*: INTRODUCTION, ORGANIZATIONAL INFLUENCES AND PROJECT LIFE CYCLE, PROJECT INTEGRATION MANAGEMENT

An important item to remember is the Project Management Framework, as described in the *PMBOK® Guide – Fifth Edition*, which defines a total of 47 project processes that describe the activities generally found throughout a project's life cycle. These processes are organized into ten knowledge areas and comprise the five process groups: Initiating, Planning, Executing, Monitoring, and Closing.

The 10 knowledge areas of Project Management are: ***Integration Management, Scope Management, Time Management, Cost Management, Risk Management, Human Resources Management, Quality Management, Procurement Management, Communication Management, and Stakeholder Management.*** These knowledge areas and the subprocesses associated with them are connected through the “system” of project management and are all *Integrated, Interrelated, and Interdependent*. There are no independent components of a project and changes to the elements of one knowledge area, such as Scope Management, as described in the *PMBOK® Guide*, may, in some way, impact any of the other knowledge areas. Each knowledge area and its detailed subprocesses are part of the total system of project management.

Important terms to remember

Change Control Board A team or group designated or empowered to review and determine the value of a change and to approve or deny change requests.

Close Project Utilizing the project management methodology, Project Management Information System (PMIS), and the expert judgment of the functional managers to complete the project and perform all final administrative procedures. The processes required to obtain formal acceptance and completion of project files for reference as historical information.

Configuration Management Process that will ensure that configuration changes (changes to features, functions, dimensions, physical characteristics) are managed and approved to prevent or reduce the risks of additional cost and scope changes, or other impacts to the project.

Constraints and Assumptions Constraints are the limitations the project manager and team must operate within. Examples: predetermined schedule and budget, limited resources. Assumptions in the project management context are items that, for planning purposes can be believed to be true, real, or certain. Assumptions are not grounded in fact and should be verified.

Enterprise Environmental Factors Internal and external factors may influence the project outcome and must be considered by the project manager and team during project planning and implementation such as the organizational culture, industry standards, resource availability and capability, risk tolerance, and political environment.

Historical Records Data and information gathered during project planning and execution and recorded for legal purposes, references, and lessons learned.

Integrated Change Control The 10 knowledge areas are managed in an integrated manner with an understanding that a change in one area can impact any or all of the other knowledge areas. Example: A change in the scope of a project may impact the schedule and budget. A change in quality requirements may impact the budget and the human resource requirements. It is recommended that the project team considers the impact of the change before implementing the change by using a predefined change control process. A change control process generally has three major objectives: Obtain approval for the change, determine if change has occurred through comparison of the baseline with actual results and, determine when and how to introduce the change to minimize the impact on ongoing operations.

Monitor and Control Project Work Agreed upon processes for managing work performance, managing change requests, utilization of earned value techniques, identifying corrective and preventive actions.

Organizational Process Assets Standard policies and procedures established by an organization and expected to be followed such as safety procedures, quality assurance reviews, project health checks. Process assets may also include available planning templates, financial controls, change control procedures, and risk management processes.

Organizational Strategies How an organization will achieve its goals and objectives. A formal project management process may be an organizational strategy. Consider how your project impacts or supports your organization's objectives. Make sure you can link your project to the organizational goals.

Preliminary Project Scope Statement This document describes the project and the desired objectives at a very high level. The preliminary scope statement includes the definition of the project, the products and services to be delivered, major milestones, and acceptance criteria. A final project scope statement is developed during the *PMBOK Guide*® "define scope" process.

Progressive Elaboration The process of moving forward incrementally and adding more detail to the project plan.

Project Charter The initial project document that authorizes the project and the use of resources. Assignment of the project manager and level of decision making authority of the project manager is also included in a project charter.

Project Management Information System Any system or group of systems working together to gather, store, and distribute information about your project. Examples: Time-reporting system, Accounting System, Project Software.

Project Management Plan All of the actions necessary to integrate and coordinate the entire project effort including any subsidiary plans that have been established by the project team. The project plan guides the team during project execution and is expected to change as the project is progressively elaborated

Project Plan The approved document that provides the baseline for executing and managing the project.

SMART Objectives Well defined objectives are considered to be Specific, Measurable, Attainable, Realistic, Time bound

Stakeholders People and or organizations directly involved in or impacted by the project. Consider who the key stakeholders are and also other stakeholders who may view your project as a threat or an obstacle to their projects or personal objectives. Determine who the negative stakeholders are and what risks they may introduce to the successful completion of your project. Develop strategies for dealing with your project stakeholders

Subsidiary Plans Plans created to support the higher-level project management plan. An example of a subsidiary plan is the Change Control Plan—the control processes in place to manage other knowledge areas such as Scope Change Control, Schedule Change Control, Cost Change Control, etc. The total or *Integrated Project Management plan* may include several subsidiary plans depending on the complexity of the project. Other examples of subsidiary plans: Human Resources Plan, Quality Plan, Safety Plan.

Integrated planning includes many processes, so be prepared to answer questions that may include several different processes related to a project situation. Become familiar with all process groups, and make sure you are familiar with the inputs, tools, techniques, and outputs of each process described in the *PMBOK® Guide*.

PMI® emphasizes the importance of planning. Proper planning requires effective communication among the team and sound leadership from the project manager. The result of effective and comprehensive planning is a project team that is more completely informed and has a strong understanding of the larger, integrated purpose and objectives of the project.

Additional tips and practice items for the PMP® exam are included in each chapter and in the section of the workbook entitled ***PMP® Exam and PMBOK Guide® Review***.

Answers to Questions and Exercises

1. 16 Points

1. Provide management with supporting information about how project management can assist in achieving organizational objectives. Obtain best practices documentation from companies that are actively using project management processes and methodologies and provide a summary to executive management.
2. Identify and communicate the benefits of project management.
3. Establish a project kickoff process and project-planning methodology.
4. Set objectives clearly using SMART criteria.
5. Establish a performance measurement system using earned value management.
6. Establish guidelines and criteria for selection of a project manager. Emphasize soft skills as well as managerial skills.
7. Establish expectations with executives at project start-up.
8. Communicate project sponsor support and executive support to the team. Understand line manager priorities. Create a positive working relationship.
9. Prepare and communicate acceptance criteria. Communicate the scope statement.
10. Obtain sponsor and executive support, establish clear objectives, and develop a communications plan.
11. Reward and recognize project teams and develop team building activities.

- 12.** Create meeting guidelines. Meet only when necessary. Define the meeting purpose, create an agenda, and manage time effectively.
 - 13.** Develop a risk management plan and a process for managing issues.
 - 14.** Use earned value management and establish success metrics. Conduct reviews after each project phase.
 - 15.** Identify a software application that will be accepted and used by project managers. Provide the appropriate training.
 - 16.** Establish a Project Management Office, require documentation of lessons learned, and ensure that management support is visible.
- 2.** Control of changes, consistent approach, improve quality, reduces risk, and improves estimating ability.
 - 3.** On schedule, within budget, within performance specifications (and quality requirements).
 - 4.** Customer satisfaction. Add on business, employee satisfaction, no disruption of operations, minimal changes to the scope of work, executive management recognition of the project team, minimal conflicts among team members and organization units, fully operational and accepted product or service deliverables.
 - 5.** Functional units may develop their own culture, management hierarchy may affect the ability to communicate, protection of area of responsibility (turfism), competition among managers, different priorities, unclear organizational objectives, failure to communicate strategic goals, inappropriate organizational structure, organizational culture, business unit culture.
 - 6.** Anyone directly involved in the project or in some way affected either positively or negatively as a result of the project. Stakeholders generally include the project manager, project team, project sponsor, and project customer and may include many others.
 - 7.** Schedule, Cost, Scope (can also be quality or performance specifications).
 - 8.** This diagram is typically used to illustrate the triple constraint. The significance is that any change to one side of the triangle may affect the other sides.
 - 9.** Quality, availability of the project manager, timeliness of status reporting, reliability of the product or service deliverable, safety, minimum or mutually agreed upon scope changes, no impact or interruption to the work flow of the organization. Also considered may be aesthetic appearance or aesthetic value of the deliverable, achievement of objectives, achievement of benefits expected, achievement of the value expected, and also possibly ease of use.
 - 10.** The project manager depends on the functional managers to provide the appropriate resources and to ensure that the work is performed correctly. A good relationship will minimize conflict and increase the likelihood of functional manager willingness to work on future projects with the project manager.
 - 11.** All project components and planning processes are interrelated. The project manager must coordinate and integrate project activities across organizational boundaries. The project manager ensures that functional units communicate effectively.

- 12.** The functional manager provides the resources and technical expertise. Challenges include: different priorities among project managers and projects, managing the demands of multiple project managers, limited resources, unreasonable time frames, and internal politics.
- 13.** Establish expectations at the start of the project. Include communications requirements, escalation procedures, planning processes and methodology, and clear objectives.
- 14.** There are many possible answers and solutions to the causes. This exercise is intended to emphasize the importance of identifying potential project problems and encourage proactive thinking and action. Any combination of causes may affect the outcome of the project.
- 15.** The project manager is considered and integrator and coordinator for all major project activities. The project manager is held accountable for successful completion of the project. The project manager is a liaison between the project team and the project sponsor or executive steering committee. Other roles include: team builder, conflict manager, coach, mentor, facilitator, leader, motivator.
- 16.** The project manager can develop better relationships with the functional managers through listening and understanding the priorities of the functional managers, their work environment, and issues associated with the functional manager's position.
- 17.** Establish expectations clearly and intentionally between the project manager and the project sponsor or executive.
- 18.** A project is a temporary endeavor undertaken to create a unique product, service, or result.
- 19.** Initiating, Planning, Executing, Monitoring and Controlling, and Closing
- 20.** Project complexity—ensure that a detailed project scope statement is prepared. Organizational structure—Develop working relationships with the leaders/ managers of the organizations you expect to engage in your project activities. Changing requirements—Establish a well defined change process and ensure that it is observed. Other obstacles include: changing technology, internal politics, and organizational silos.

Chapter Two

PROJECT MANAGEMENT GROWTH: CONCEPTS AND DEFINITIONS

This chapter focuses on the general evolution of project management from the 1940s through today's business environment. Formal project management has its roots in the 1940s particularly in the area of military and complex weapons systems. These projects consumed enormous amounts of resources and today we refer to very large implementations as "mega projects." In the past four decades project management has grown from a means to achieve successful completion of small, intermediate and large complex projects or endeavors (sometimes referred to as engagements) to a key element in strategic planning. The use of powerful technology based tools, enterprisewide methodologies, and processes to control activities, manage people and resources have become an accepted part of business management. The project life cycle, systems thinking, and the influence of project management processes on an organization's critical success factors have had a significant impact on overall organizational performance.

Glossary of terms Key terms and definitions to review and remember

General Systems Management When applied to organizational structure, it is a management technique designed to cross many organizational disciplines. For example: finance, manufacturing, engineering, and marketing. Systems management refers to the need to understand how each component of a system affects the operation of the entire system.

Mature Project Management The implementation of a standard methodology and accompanying processes that creates a high probability of repeated successes. Maturity in this context refers to a "culture" of project management where project processes are embedded in normal business practices.

Product Scope The features and functions that characterize the deliverable. This includes dimensions, features and physical characteristics; the complexity of the product.

Program A group of related projects managed in a coordinated way to obtain benefits and control that is not available from managing them individually. Programs may include elements of related work outside the scope of the discrete projects in the program. Projects are normally the first-level subdivision of a program. Programs are associated with higher

level organizational objectives and benefits realization. Programs generally have a longer overall duration than a project and in some cases are related to the support of ongoing organizational activities.

Project Management Methodology A repetitive process, approved by executive management, and used on all projects within an organization to increase the likelihood of achieving project success, project management excellence, and maturity.

Project Scope The work that must be accomplished to produce a deliverable that will meet all specified features and functions. The deliverable can be a product, service, or other result as defined by the customer.

Stage-Gate Process Stages are a group of activities that can be performed either in series or parallel based on the magnitude of risks the project team can endure. Gates are structured decision points at the end of each stage. These decision points are used to assess project performance and determine if corrective action is necessary.

System A group of elements, either human or nonhuman, that is organized and arranged in such a way that the elements can act as a whole toward achieving some common goal or objective.

Activities, Questions, and Exercises

Refer to Chapter Two of *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* (11th Edition) for supporting information and assistance in completing each exercise. The following questions and exercises are associated with the knowledge area of the *PMBOK® Guide: The Project Management Framework*.

Review each of the following questions or exercises and provide the answers in the space provided.

1. If you were assigned the task of developing a set of questions to assist an organization in determining if there is a need for a formal project management process, what questions would you ask?

2. As project management evolved it became apparent to many executives that a formal project management process may not provide benefits significant enough to justify the expense associated with developing a formal methodology. In many organizations, project management was considered as overhead. The driving forces of rapid technology changes, the increasing complexity of projects, and the increased demand for resources with specialized knowledge all contributed to the need for an effective project management methodology. How can a project management methodology assist in managing and resolving issues related to these driving forces? What benefits are obtained through the use of a project management methodology? What other driving forces may influence the decisions associated with establishing a project management methodology in an organization?
