Chapter 2: The Project Management and Information Technology Context

True / False

1. Project managers should lead projects in isolation in order to truly serve the needs of the organization.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: Even though projects are temporary and intended to provide a unique product or service, you cannot run projects in isolation. If project managers lead projects in isolation, it is unlikely that they will ever truly serve the needs of the organization.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Comprehension

2. Using a systems approach is critical to successful project management.
    a. True
    b. False

ANSWER:	True
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p. 45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Comprehension

3. Systems analysis addresses the business, technological, and organizational issues associated with creating, maintaining, and modifying a system.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: Systems management addresses the business, technological, and organizational issues associated with creating, maintaining,and modifying a system.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p. 45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Knowledge

4. Project managers and their teams must keep in mind the effects of any project on the interests and needs of the entire

system or organization instead of focusing on the immediate concerns of the project.
     a. True
     b. False

ANSWER:	True
RATIONALE:	Feedback: Although it is easier to focus on the immediate and sometimes narrow concerns of a particular project, project managers and other staff must keep in mind the effects of any project on the interests and needs of the entire system or organization.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.46
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Comprehension

5. When you separate business and organizational issues from project management planning, you do a better job of ensuring project success.
     a. True
     b. False

ANSWER:	False
RATIONALE:	Feedback: When you integrate business and organizational issues into project management planning and look at projects as a series of interrelated phases, you do a better job of ensuring project success.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.47
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Comprehension

6. According to the symbolic frame, the most important aspect of any event in an organization is not what actually happened, but what it means.
     a. True
     b. False

ANSWER:	True
RATIONALE:	Feedback: The symbolic frame focuses on symbols and meanings. In this frame, the most important aspect of any event in an organization is not what actually happened, but what it means.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.48
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations

KEYWORDS:	Bloom's: Knowledge

7. Most colleges and universities have very strong functional organizations.
     a. True
     b. False

ANSWER:	True
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.49
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

8. An organization that uses a project organizational structure earns their revenue primarily from performing projects for other groups under contract.
     a. True
     b. False

ANSWER:	True
RATIONALE:	Feedback: A project organizational structure is hierarchical, but instead of functional managers or vice presidents reporting to the CEO, program managers report to the CEO. Their staffs have a variety of skills needed to complete the projects within their programs. An organization that uses this structure earns its revenue primarily from performing projects for other groups under contract.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.50
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

9. Project managers in matrix organizations have staff from various functional areas working on their projects.
     a. True
     b. False

ANSWER:	True
RATIONALE:	Feedback: Project managers in matrix organizations have staff from various functional areas working on their projects.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p. 50
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

10. The project organizational structure is the most efficient choice for most IT projects.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: The project organizational structure is often inefficient for the company as a whole. Assigning full-time staff to a project often creates under-utilization and misallocation of staff resources.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p. 51
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

11. Most people believe that the underlying causes of many companies' problems can be traced to its organizational structure.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: Organizational culture is very powerful, and many people believe the underlying causes of many companies' problems are not in the organizational structure or staff; they are in the culture.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.51
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

12. The same organization can have different subcultures.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: It is also important to note that the same organization can have different subcultures. The IT department may have a different organizational culture than the finance department, for example.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.51
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

13.   An organizational culture with strong unit integration makes the project manager's job more difficult
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: Most project managers strive for strong unit integration to deliver a successful product, service, or result. An organizational culture with strong unit integration makes the project manager's job easier.
POINTS:	1
DIFFICULTY:	Easy
REFERENCES:	p.51
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG - Technology
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

14. Project work is most successful in an organizational culture where activities are organized around individuals.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: Project work is most successful in organizations in which work activities are organized around groups or teams, rather than individuals. An organizational culture that emphasizes group work is best for managing projects.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.52
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

15. Internal stakeholders include groups affected by the project such as government officials or concerned citizens.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: External project stakeholders include the project's customers (if they are external to the organization), competitors, suppliers, and other external groups potentially involved in the project or affected by it, such as government officials or concerned citizens.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.52
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

16. Project managers must take adequate time to identify, understand, and manage relationships with all project stakeholders.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: Because the purpose of project management is to meet project requirements and satisfy stakeholders, it is critical that project managers take adequate time to identify, understand, and manage relationships with all project stakeholders.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.52
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

17. The best way to sustain a project is to withhold the required money, human resources, and visibility for the project.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: The best way to kill a project is to withhold the required money, human resources, and visibility.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.54
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

18. Project managers must have cooperation from people in other parts of the organization.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: Project managers must have cooperation from people in other parts of the organization. If certain functional managers are not responding to project managers' requests for necessary information, top management must step in to encourage the functional managers to cooperate.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.54
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

19. Standards and guidelines to follow when performing project management must be devised by top management.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: The content of a project management plan and instructions for providing status information might seem like common sense to senior managers, but many new IT project managers have never created plans or created a nontechnical status report. Top management must support the development of these standards and guidelines, and encourage or even enforce their use.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.56
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

20. It is much more expensive to make major changes to a project during the earlier phases.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: In early phases of a project life cycle, resource needs are usually lowest and the level of uncertainty is highest. It is much more expensive to make major changes to a project during latter phases.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p. 57
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle
KEYWORDS:	Bloom's: Comprehension

21. The last phase of the traditional project life cycle is the implementation phase.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: The last phase of the traditional project life cycle is the close-out phase.In it, all of the work is completed, and customers should accept the entire project.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.59
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle

KEYWORDS:	Bloom's: Knowledge

22. The Adaptive Software Development (ASD) life cycle model assumes that software development follows an adaptive approach because the requirements cannot be clearly expressed early in the life cycle.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: The adaptive software development (ASD) life cycle model assumes that software development follows an adaptive approach because the requirements cannot be clearly expressed early in the life cycle.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.61
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle
KEYWORDS:	Bloom's: Knowledge

23. An organization usually commits more money as a project continues, therefore a management review should occur after each phase to evaluate progress, potential success, and continued compatibility with organizational goals.
    a. True
    b. False

ANSWER:	True
RATIONALE:	Feedback: Because the organization usually commits more money as a project continues, a management review should occur after each phase to evaluate progress, potential success, and continued compatibility with organizational goals.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.62
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle
KEYWORDS:	Bloom's: Comprehension

24. The nature of hardware development projects is more diverse than software-oriented projects.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: The nature of software development projects is even more diverse than hardware-oriented projects. A software development project might include creating a simple, stand-alone Microsoft Excel or Access application, or a sophisticated, global e-commerce system that uses state-of-the-art programming languages and runs on multiple platforms.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.64
LEARNING OBJECTIVES:	INFO.SCHW.14.13 - LO: 2-5

Chapter 2: The Project Management and Information Technology Context

NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	The Context of Information Technology Projects
KEYWORDS:	Bloom's: Knowledge

25. The team members of a virtual team are all of the same nationality.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: A virtual team is a group of people who work together despite time and space boundaries using communication technologies. Team members might all work for the same company in the same country, or they might include employees as well as independent consultants, suppliers, or even volunteers providing their expertise from around the globe.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.67
LEARNING OBJECTIVES:	INFO.SCHW.14.14 - LO: 2-6
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Recent Trends Affecting Information Technology Project Management
KEYWORDS:	Bloom's: Knowledge

26. Leadership style has no impact on the success of virtual teams.
    a. True
    b. False

ANSWER:	False
RATIONALE:	Feedback: The project manager's leadership style affects all teams, especially virtual ones.
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.68
LEARNING OBJECTIVES:	INFO.SCHW.14.14 - LO: 2-6
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Recent Trends Affecting Information Technology Project Management
KEYWORDS:	Bloom's: Knowledge

Completion

64. A(n) _____ is an overall model for thinking about things as sets of interacting components working within an environment to fulfill some purpose.

ANSWER:	systems philosophy
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management

KEYWORDS: Bloom's: Knowledge

65. _____ are sets of interacting components working within an environment to fulfill some purpose.

ANSWER:	Systems
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Knowledge

66. _____ addresses the business, technological, and organizational issues associated with creating, maintaining, and making a change to a system.

ANSWER:	Systems management
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Knowledge

67. The three spheres of systems management are business, organization, and _____.

ANSWER:	technology
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.46
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Knowledge

68. The _____ frame of the organization is the one that is usually depicted in an organizational chart.

ANSWER:	structural
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.47
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

69. The _____ frame of an organization relates to the company's culture.

ANSWER:	symbolic

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POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.48
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Comprehension

70. Three general classifications of organizational structures are _____, project, and matrix.

ANSWER:	functional
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p. 49
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

71. In a(n) _____ organizational structure, project managers have little or no authority.

ANSWER:	functional
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.50
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

72. _____ refers to the degree to which work activities are organized around teams, rather than individuals.

ANSWER:	Group emphasis
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.51
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

73. _____ refers to the degree to which rules, policies, and direct supervision are used to oversee employee behavior.

ANSWER:	Control
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.52
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2

NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

74. Some projects have a senior manager called a(n)_____ who acts as a key proponent for a project.

ANSWER:	champion
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.54
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

75. A major element of good practice concerns _____ , which addresses the authority and control for key IT activities in organizations, including IT infrastructure, IT use, and project management.

ANSWER:	IT governance
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.55
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Technology
TOPICS:	Focusing on Stakeholder Needs
KEYWORDS:	Bloom's: Knowledge

76. A(n) _____ refers to a product or service, such as a report, a training session, a piece of hardware, or a segment of software code, produced or provided as part of a project.

ANSWER:	deliverable
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.57
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle
KEYWORDS:	Bloom's: Knowledge

77. In the _____ phase of the project life cycle, the work is completed, and customers should accept the entire project.

ANSWER:	close-out
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.59
LEARNING OBJECTIVES:	INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Project Phases and the Project Life Cycle
KEYWORDS:	Bloom's: Knowledge

82. _____ is an organization's acquisition of goods and services from an outside source.

ANSWER:	Outsourcing
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.66
LEARNING OBJECTIVES:	INFO.SCHW.14.14 - LO: 2-6
NATIONAL STANDARDS:	United States - BUSPROG: Technology
TOPICS:	Recent Trends Affecting Information Technology Project Management
KEYWORDS:	Bloom's: Knowledge

83. Sprint planning is part of the basic _____.

ANSWER:	Scrum framework
POINTS:	1
DIFFICULTY:	Difficulty: Easy
REFERENCES:	p.70
LEARNING OBJECTIVES:	INFO.SCHW.14.14 - LO: 2-6
NATIONAL STANDARDS:	United States - BUSPROG: Technology
TOPICS:	Recent Trends Affecting Information Technology Project Management
KEYWORDS:	Bloom's: Knowledge

Essay

84. Describe the concept of a systems approach.

ANSWER:	The term **systems approach** emerged in the 1950s to describe a holistic and analytical approach to solving complex problems that includes using a systems philosophy, systems analysis, and systems management. A **systems philosophy** is an overall model for thinking about things as systems. **Systems** are sets of interacting components working within an environment to fulfill some purpose. For example, the human body is a system composed of many subsystems—the nervous system, the skeletal system, the circulatory system, the digestive system, and so on. **Systems analysis** is a problem-solving approach that requires defining the scope of the system, dividing it into its components, and then identifying and evaluating its problems, opportunities, constraints, and needs. Once this is completed, the systems analyst then examines alternative solutions for improving the current situation, identifies an optimum, or at least satisfactory, solution or action plan, and examines that plan against the entire system. **Systems management** addresses the business, technological, and organizational issues associated with creating, maintaining, and modifying a system.
POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.45
LEARNING OBJECTIVES:	INFO.SCHW.14.9 - LO: 2-1
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	A Systems View of Project Management
KEYWORDS:	Bloom's: Knowledge

85. What are the four frames of organizations? Describe each frame.

ANSWER: The **structural frame** deals with how the organization is structured (usually depicted in an organizational chart) and focuses on different groups' roles and responsibilities in order to meet the goals and policies set by top management. This frame is very rational and focuses on coordination and control. For example, within the structural frame, a key information technology issue is whether a company should centralize the information technology personnel in one department or decentralize across several departments.

The **human resources frame** focuses on producing harmony between the needs of the organization and the needs of the people. It recognizes that there are often mismatches between the needs of the organization and the needs of individuals and groups and works to resolve any potential problems. For example, many projects might be more efficient for the organization if personnel worked 80 or more hours a week for several months. This work schedule would probably conflict with the personal lives of those people. Important issues in information technology related to the human resources frame are the shortage of skilled information technology workers within the organization and unrealistic schedules imposed on many projects.

The **political frame** addresses organizational and personal politics. Politics in organizations take the form of competition among groups or individuals for power and leadership. The political frame assumes that organizations are coalitions composed of varied individuals and interest groups. Often, important decisions need to be made based on the allocation of scarce resources. Competition for scarce resources makes conflict a central issue in organizations, and power improves the ability to obtain scarce resources. Project managers must pay attention to politics and power if they are to be effective. It is important to know who opposes your projects as well as who supports them. Important issues in information technology related to the political frame are the power shifts from central functions to operating units or from functional managers to project managers.

The s**ymbolic frame** focuses on symbols and meanings. What is most important about any event in an organization is not what actually happened, but what it means. Was it a good sign that the CEO came to a kickoff meeting for a project, or was it a threat? The symbolic frame also relates to the company's culture. How do people dress? How many hours do they work? How do they run meetings? Many information technology projects are international and include stakeholders from various cultures. Understanding those cultures is also a crucial part of the symbolic frame.

POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.47-48
LEARNING OBJECTIVES:	INFO.SCHW.14.10 - LO: 2-2
NATIONAL STANDARDS:	United States - BUSPROG: Technology
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

86. Describe each of the three major types of organizational structure.

ANSWER: A **functional organizational structure** is the hierarchy most people think of when picturing an organizational chart. Functional managers or vice presidents in specialties such as engineering, manufacturing, information technology (IT), and human resources (HR) report to the chief executive officer (CEO). Their staffs have specialized skills in their respective disciplines. For example, most colleges and universities have very strong functional organizations. Only faculty in the Business department teach business courses; faculty in the History department teach history; faculty in the Art department teach art, and so on.

A **project organizational structure** also has a hierarchical structure, but instead of functional managers or vice presidents reporting to the CEO, program managers report to the CEO. Their staffs have a variety of skills needed to complete the projects within their programs. An organization that uses this structure earns their revenue primarily from performing projects for other groups under contract. For example, many defense, architectural, engineering, and consulting companies use a project organizational structure. These companies often hire people specifically to work on particular projects.

A **matrix organizational structure** represents the middle ground between functional and project structures. Personnel often report to both a functional manager and one or more project managers. For example, information technology personnel at many companies often split their time between two or more projects, but they report to their manager in the Information Technology department. Project managers in matrix organizations have staff from various functional areas working on their projects. Matrix organizational structures can be strong, weak, or balanced, based on the amount of control exerted by the project managers.

POINTS:	1
DIFFICULTY:	Difficulty: Moderate
REFERENCES:	p.49-50
LEARNING OBJECTIVES:	INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS:	United States - BUSPROG: Analytic
TOPICS:	Understanding Organizations
KEYWORDS:	Bloom's: Knowledge

87. Why is top management commitment crucial for project managers?

ANSWER: Project managers need adequate resources. The best way to kill a project is to withhold the required money, human resources, and visibility for the project. If project managers have top management commitment, they will also have adequate resources and not be distracted by events that do not affect their specific projects.

Project managers often require approval for unique project needs in a timely manner. For example, on large information technology projects, top management must understand that unexpected problems may result from the nature of the products being produced and the specific skills of the people on the project team. For example, the team might need additional hardware and software halfway through the project for proper testing, or the project manager might need to offer special pay and benefits to attract and retain key project personnel. With top management commitment, project managers can meet these specific needs in a timely manner.

Project managers must have cooperation from people in other parts of the organization. Since most information technology projects cut across functional areas, top management must help project managers deal with the political issues that often arise in these types of situations. If certain functional managers are not responding to project managers' requests for necessary information, top management must step in to encourage functional managers to cooperate.

Project managers often need someone to mentor and coach them on leadership issues. Many information technology project managers come from technical positions and are inexperienced as managers. Senior managers should take the time to pass on advice on how to be good leaders. They should encourage new project managers to take classes to develop leadership skills and allocate the time and funds for them to do so.

POINTS: 1
DIFFICULTY: Difficulty: Moderate
REFERENCES: p. 54-55
LEARNING OBJECTIVES: INFO.SCHW.14.11 - LO: 2-3
NATIONAL STANDARDS: United States - BUSPROG: Analytic
TOPICS: Focusing on Stakeholder Needs
KEYWORDS: Bloom's: Comprehension

88. What is a systems development life cycle? What are some of the predictive models associated with the systems development life cycle?

ANSWER: A **systems development life cycle (SDLC)** is a framework for describing the phases involved in developing information systems. Some popular models of a systems development life cycle include the waterfall model, the spiral model, the incremental build model, the prototyping model, and the Rapid Application Development (RAD) model. These life cycle models are examples of a **predictive life cycle**, meaning that the scope of the project can be clearly articulated and the schedule and cost can be accurately predicted. The project team spends a large portion of the project effort attempting to clarify the requirements of the entire system and then producing a design. Users are often unable to see any tangible results in terms of working software for an extended period. Below are brief descriptions of several predictive SDLC models:

The waterfall life cycle model has well-defined, linear stages of systems development and support. This life cycle model assumes that requirements will remain stable after they are defined.

The spiral life cycle model was developed based on experience with various refinements of the waterfall model as applied to large government software projects. It recognizes the fact that most software is developed using an iterative or spiral approach rather than a linear approach.

The incremental build life cycle model provides for progressive development of operational software, with each release providing added capabilities.

The prototyping life cycle model is used for developing software prototypes to clarify user requirements for operational software. It requires heavy user involvement, and developers use a model to generate functional requirements and physical design specifications simultaneously. Developers can throw away or keep prototypes, depending on the project.

The Rapid Application Development (RAD) life cycle model uses an approach in which developers work with an evolving prototype. This life cycle model also requires heavy user involvement and helps produce systems quickly without sacrificing quality. Developers use RAD tools such as CASE (Computer Aided Software Engineering), JRP (Joint Requirements Planning), and JAD (Joint Application Design) to facilitate rapid prototyping and code generation.

POINTS: 1
DIFFICULTY: Difficulty: Moderate
REFERENCES: p. 60-61
LEARNING OBJECTIVES: INFO.SCHW.14.12 - LO: 2-4
NATIONAL STANDARDS: United States - BUSPROG: Analytic
TOPICS: Project Phases and the Project Life Cycle

KEYWORDS:　　　　　　　Bloom's: Knowledge

89. Discuss four key issues project managers must address when working on global projects.

ANSWER:　　　　　　　*Communications.* Because people work in different time zones, speak different languages, have different cultural backgrounds, and celebrate different holidays, it is important to address how people will communicate in an efficient and timely manner.

　　　　　　　　　　　Trust.　　Trust is an important issue for all teams, especially when they are global teams. It is important to start building trust immediately by recognizing and respecting others' differences and the value they add to the project.

　　　　　　　　　　　Common work practices.　　It is important to align work processes and develop a modus operandi with which everyone agrees and is comfortable.

　　　　　　　　　　　Tools. IT pays a vital role in globalization, especially in enhancing communications and work practices. Many people use free tools such as Skype, Google Docs or social media to communicate. Many project management software tools include their own communications and collaboration features in an integrated package.

POINTS:　　　　　　　1
DIFFICULTY:　　　　　　Difficulty: Moderate
REFERENCES:　　　　　　p. 66
LEARNING OBJECTIVES:　INFO.SCHW.14.14 - LO: 2-6
NATIONAL STANDARDS:　United States - BUSPROG: Analytic
TOPICS:　　　　　　　Recent Trends Affecting Information Technology Project Management
KEYWORDS:　　　　　　　Bloom's: Knowledge