Chapter 1: Introduction to Project Management

TRUE/FALSE

1. Until the 1980s, project management primarily focused on providing schedule and resource data to top management in the military and construction industries. (True)

2. One attribute that helps define a project is that a project has a unique purpose. (True)

3. Projects should go on indefinitely: they do not have a definite beginning, middle, or end. (False)

4. A program is a group of projects managed in a coordinated way to obtain benefits not available from managing them individually. (True)

5. A project never involves uncertainty. (False)

6. Questions about how long a project's schedule should be are related to the issue of the project's scope. (False)

7. Managing the triple constraint involves making trade-offs between scope, time, and cost goals for a project. (True)

8. Much of the knowledge needed to manage projects is not unique to the discipline of project management. (True)

9. Project managers must understand general management concepts such as organizational behavior, financial analysis, and planning techniques. (True)

10. The role of a project manager is different from the role of a corporate manager or executive. (True)

11. It would be very easy for someone with little or no background in information technology to become the project manager for a large information technology project. (False)

12. Project management is the silver bullet that guarantees success on all projects. (False)

13. Determining the relationships among tasks is not essential in helping to improve project scheduling. (False)

14. The project manager's challenge is to understand the concepts of project management and determine what tools and techniques should be applied on specific projects and in specific organizations. (True)

15. No matter what industry you work in, you need to understand the problems at hand if you are to manage projects successfully. (True)

MODIFIED TRUE/FALSE

1. The U.S. spends $2.3 trillion on projects every year, an amount equal to one-tenth of the nation's gross domestic product. _____(False) quater_____

2. Resources include people, hardware, software, or other assets. _____True_____

3. A good project officer is crucial to a project's success because he or she works with the project sponsors, the project team, and the other people involved in a project to meet project goals. _____(False) Manager_____

4. The limitations of scope, time, and cost goals are sometimes referred to as the triple bind. _____(False) constraint_____

5. Because of the uncertain nature of projects and competition for resources, it is rare to complete many projects according to the exact scope, time, and cost plans originally predicted. _____True_____

6. The 2001 Standish Group report showed decided decline in information technology project management compared to the 1995 study. _____(False) increase_____

7. The 2001 Standish Group report showed that time overruns significantly increased compared to the 1995 study. _____True_____

8. The 2001 Standish Group report showed that the average cost of a project has been more than cut in half. _____True_____

9. Since projects are unique, permanent, and involve various resources, project managers must focus on integrating all the various activities required to complete the project successfully. _____(False) temporary_____

10. The Manhattan Project cost almost $2 billion in 1966. _____(False) 1946_____

11. Today's project managers still use the Gantt chart as the primary tool to communicate project schedule information, but with the aid of computers, it is no longer necessary to draw the charts by hand. _____(True)_____

12. New software makes basic tools, such as Gantt charts and network diagrams, inexpensive, easy to create, and available for anyone to update. _____(True)_____

13. Summary charts made with enterprise project management software often show status as green to indicate things are going well, yellow to indicate that there are some problems, and blue to indicate major problems. _____(False) red_____

14. PMI developed a PMP code of professional conduct that all applicants must agree to in order to become certified project management professionals (PMPs). _____(True)_____

MULTIPLE CHOICE

1. Many organizations claim that one of the advantages of using project management is ____.
   a. lower profit margins
   b. lower costs
   c. lower quality
   d. lower worker morale

2. Because a project often requires resources from various areas, many projects cross ____ or other boundaries to achieve their unique purpose.
   a. financial
   b. spatial
   c. departmental
   d. technological

3. The project ____ usually provides direction and funding for the project.
   a. leader
   b. sponsor
   c. manager
   d. director

4. Project ____ is the application of knowledge, skills, tools, and techniques to project activities in order to meet project requirements.
   a. sponsorship
   b. advice
   c. technology
   d. management

5. ____ are the people involved in or affected by project activities and include the project sponsor, project team, support staff, customers, users, suppliers, and even opponents to the project.
   a. Managers
   b. Stakeholders
   c. Directors
   d. Citizens

6. In the example of the project of building a house, the sponsors would be the potential ____.
   a. contractors
   b. support staff
   c. managers
   d. homeowners

7. Project ____ management ensures that the project will satisfy the stated or implied needs for which it was undertaken.
   a. scope
   b. quality
   c. time
   d. cost

8. Project ____ management involves generating, collecting, disseminating, and storing project information.
   a. risk
   b. procurement
   c. communications
   d. resource

9. Project ____ resource management is concerned with making effective use of the people involved with the project.
   a. human
   b. risk
   c. communications
   d. procurement

10. Project ____ management, the ninth knowledge area, is an overarching function that affects and is affected by all of the other knowledge areas.
    a. cost
    b. quality
    c. integration
    d. time

11. What works on one project may not work on another, so it is essential for project managers to continue to develop their knowledge and ____ in managing projects.
    a. time
    b. resources
    c. funding
    d. skills

12. Although information technology project managers need to draw on their information technology expertise or the expertise of key team members, they must spend ____ time becoming better project managers and ____ time becoming information technology experts in order to successfully lead their project teams.
    a. less/less
    b. more/less
    c. less/more
    d. more/more

13. Most people agree that the modern concept of project management began with the ____.
    a. Great Wall of China
    b. first space shuttle
    c. Egyptian pyramids
    d. Manhattan Project

14. ____ was the key industry behind the development of several project management techniques.
    a. NASA
    b. The military
    c. Steel manufacturing
    d. Marine biology

15. In ____, Henry Gantt developed the famous Gantt chart as a tool for scheduling work in factories.
    a. 1817
    b. 1917
    c. 1927
    d. 1957

16. A Gantt chart displays a project's start and finish dates in a ____ format.
    a. pie chart
    b. line graph
    c. bar graph
    d. calendar

17. The longest path through a network diagram that determines the earliest completion of a project is called the ____ path.
    a. essential
    b. important
    c. critical
    d. vital

18. By the ____, the military had begun to use software to help manage large projects.
    a. 1960s
    b. 1970s
    c. 1980s
    d. 1990s

19. ____ was an early project management software product that helped managers analyze complex schedules for designing aircraft.
    a. Artemis
    b. Columbia
    c. Vega
    d. Oberlin

20. ____ project management software integrates information from multiple projects to show the status of active, approved, and future projects across an entire organization and provides links to more detailed information.
    a. Investment
    b. Active
    c. Enterprise
    d. Budget

21. Being an information technology project manager involves understanding project management, the information technology function, and the ____ environment of the project.
    a. social
    b. Computer (ngẫu hứng)
    c. business
    d. spatial

22. A PMO, or Project ____ Office, is an organizational group responsible for coordinating the project management function throughout an organization.
    a. Management
    b. Money
    c. Municipal
    d. Marketing

23. There are several project management degree programs available, and a(n) ____ number of people are earning Masters degrees and doctorates in project management.

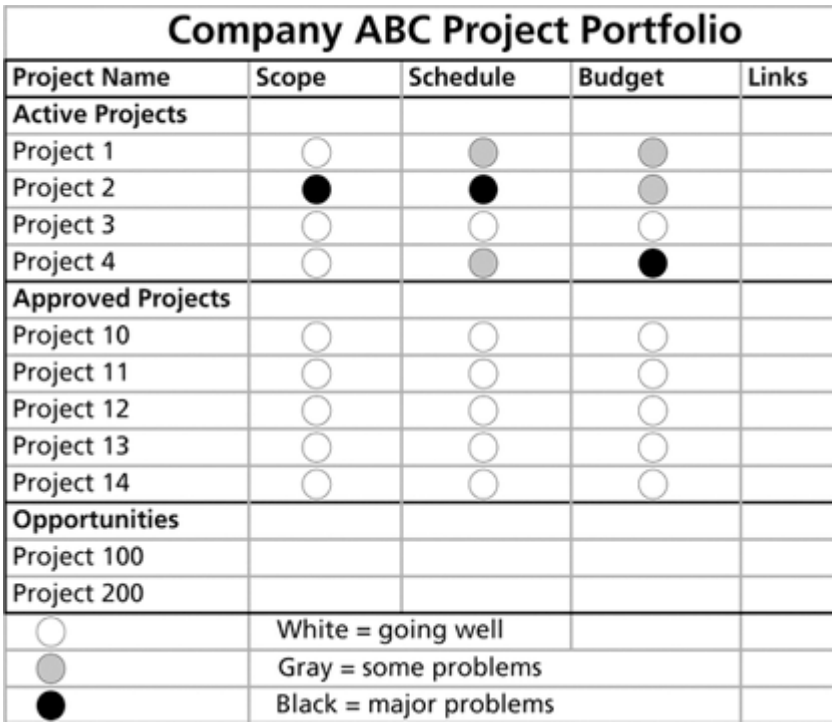
a. unchanging
b. Increasing (ngẫu hứng)
c. decreasing
d. steady

24. PMI provides certification as a Project Management ____ (PMP)--someone who has documented sufficient project experience and education, agreed to follow the PMI code of professional conduct, and demonstrated knowledge of the field of project management by passing a comprehensive examination.
a. Producer
b. Practitioner
c. Professional
d. Professor

25. By the end of 2002, there were approximately ____ people certified by PMI.
a. 1,000
b. 5,000
c. 50,000
d. 500,000

26. ____ tools are often recommended for small projects and single users.
a. Low-end
b. Midrange
c. High-end
d. Expensive

27. ____ tools, sometimes referred to as enterprise project management software, provide robust capabilities to handle very large projects.
a. Low-end
b. Midrange
c. High-end
d. Inexpensive



Company ABC Project Portfolio

Project Name	Scope	Schedule	Budget	Links
Active Projects				
Project 1	○	●	●	
Project 2	●	●	●	
Project 3	○	○	○	
Project 4	○	●	●	
Approved Projects				
Project 10	○	○	○	
Project 11	○	○	○	
Project 12	○	○	○	
Project 13	○	○	○	
Project 14	○	○	○	
Opportunities				
Project 100				
Project 200				
○	White = going well			
●	Gray = some problems			
●	Black = major problems			

28. The figure above is an example of a(n) ____ management tool.
a. portfolio
b. information
c. technology
d. Project (ngẫu hứng)

29. The Project Management ____, a Web site for people involved in project management, provides an alphabetical listing of and links to hundreds of products that help manage projects.
    a. Center
    b. Alliance
    c. Consortium
    d. Facility

COMPLETION

1. The "CHAOS" study found that more than 31 percent of information technology projects were _____canceled_____ before completion, often due to poor project management.

2. A(n) _____project_____ is a temporary endeavor undertaken to create a unique product or service.

3. The question: "what unique product or service does the customer or sponsor expect from the project?" is related to the _____scope_____ of the project.

4. The question "how much money should be spent to complete the project?" is related to the project's _____cost_____.

5. The figure above illustrates that each of the three dimensions of the triple constraint has a(n) _____target_____ or goal based on expectations for scope, time, and cost at the beginning of the project.

6. Project management tools and _____techniques_____ assist project managers and their teams in carrying out scope, time, cost, and quality management.

7. General or _____Operations_____ managers also focus on a particular discipline or functional area.

8. A(n) _____Gantt_____ chart is a standard format for displaying project schedule information by listing project activities and their corresponding start and finish dates in a calendar format.

9. As computer hardware became smaller and more _____affordable_____ and software became graphical and easy to use, project management software became less expensive and more widely used.

10. The Project Management _____Institute_____ (PMI), an international professional society for project managers, has continued to attract and retain members, reporting more than 100,000 members worldwide in early 2003.

11. Because there are so many people working on projects in various industries, PMI has created Specific _____Interest_____ Groups (SIGs) that enable people to share ideas about project management in their particular application areas, such as information systems.

12. _____Midrange_____ tools, a step up from low-end tools, are designed to handle larger projects, multiple users, and multiple projects.

ESSAY

1. Discuss the difference between corporate or operations managers and project managers. Give examples for each.

2. Discuss the differences and similarities between managing information technology projects and managing other kinds of projects.

3. Discuss the PMP code of professional conduct.

1)

Although being a project manager requires some knowledge of and practice in general management areas, the role of a project manager is different from the role of a corporate manager or executive. The nature of projects distinguishes project management from general or operations management. Since projects are unique, temporary, and involve various resources, project managers must focus on integrating all the various activities required to complete the project successfully. In contrast, most of the tasks performed by a general manager or operations manager are repetitive, ongoing, and done as day-to-day activities. General or operations managers also focus on a particular discipline or functional area. For example, a manager of an accounting department focuses on the discipline of accounting. If a project manager is hired to manage an information technology project for the accounting department, then he or she would need to know some things about accounting as well as information technology. However, the project manager's responsibility would be to manage the project, not to perform accounting or information technology functions.

2)

Lively debates continue on the differences between managing information technology projects and managing other types of projects. There are several differences, but there are even more similarities. Several articles and speakers joke about the differences between construction projects and software development projects. No, you cannot blow up an old information system like you can an old building and start from scratch. No, there are often no specific engineering principles and building codes that everyone knows and follows. Nevertheless, information technology project managers, like all project managers, still have the responsibility for working with their sponsors, project teams, and other stake-holders to achieve specific project and organizational goals. All project managers should continue to develop their knowledge and experience in project management, general management, and the industries they support.

3)

PMI approved a new Code of professional conduct effective January 1, 2007. This new code applies not only to PMPs, but to all PMI members and individuals who hold a PMI certification, apply fro a PMI certification, or serve PMI in a volunteer capacity. IT is vital for project management practitioners to conduct their work in an ethical manner. Even if you are not affiliated with PMI, these guidelines can help you conduct your work in an ethical manner, which helps the profession earn the confidence of the public, employers, employees, and all project stakeholders. The PMI Code of professional conduct includes short chapters addressing vision and applicability, responsibility, respect, fairness, and honestly.

Chapter 2: The Project Management and Information Technology Context

TRUE/FALSE

1. Many of the theories and concepts of project management are not difficult to understand. (False)

2. Organizations should run projects in isolation. (False)

3. Organizational issues are often the most difficult part of working on and managing projects.(True)

4. Project managers must ignore politics and power if they are to be effective. (False)

5. If someone in a functional organization is asked to lead a project that requires strong support from several different functional areas, he or she should ask for senior management sponsorship.(True)

6. Project organizational structures are usually the most efficient for the company as a whole. (True) (ngẫu hứng)

7. The purpose of project management is to meet project requirements and satisfy stakeholders.(True) (ngẫu hứng)

8. Project managers operate independently, having no need for cooperation from people in other parts of the organization. (False)

9. Many new information technology project managers have never created project plans or given a nontechnical status report. (True)

10. Information technology project managers do not need soft skills. (False)

11. A project idea must pass the concept phase before evolving into the development phase. (True)

12. The prototyping life cycle model requires heavy user involvement. (True)

13. Large information technology products are rarely developed as a series of projects. (False)

14. People within the same information technology job function always understand each other because they use the same technology. (False)

MODIFIED TRUE/FALSE

1. The term systems approach describes a holistic and analytical approach to solving complex problems. _____True_____

2. The systems management model divides projects into four spheres. _____(False) three_____

3. The symbolic frame assumes that organizations are coalitions composed of varied individuals and interest groups. _____(False) political_____

4. In a(n) project organizational structure, program managers report to the CEO. _____True_____

5. In a weak matrix organizational structure, the project manager has a(n) full-time role. _____(False) part_____

6. Competitors are an example of internal stakeholders. _____(False) external_____

7. The best way to kill a project is to withhold adequate resources. _____True_____

8. If certain functional managers are not responding to a project manager's requests for necessary information, top management must step in to encourage functional managers to cooperate. _____True_____

9. The concept and implementation phases of a project focus on planning. _____(False) Development_____

10. A WBS is a work breakthrough structure. _____(False) breakdown_____

11. The spiral life cycle model was developed based on experience with various refinements of the waterfall model as applied to large government software projects. _____True_____

12. Important management reviews conducted after each phase are known as feedback points. _____(False) check_____

13. Ineffective project managers are not self-assured. _____True_____

14. A recent project management study found that respondents believed positive ownership is the strongest contributing factor to project success. _____True_____ (ngẫu hứng)

MULTIPLE CHOICE

1. The term systems approach emerged in the ____.
   a. 1940s
   b. 1950s
   c. 1960s
   d. 1970s

2. Systems ____ 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.
   a. analysis
   b. philosophy
   c. management
   d. system

3. Organizational and ____ are both examples of spheres in the systems management model.
   a. analytical
   b. marketing
   c. philosophical
   d. technological

4. The systems approach requires that project managers ____ view their projects in the context of the larger organization.
   a. never
   b. rarely
   c. sometimes
   d. always

5. The ____ frame of an organization focuses on producing harmony between the needs of the organization and the needs of the people.
   a. symbolic
   b. structural
   c. human resources
   d. political

6. According to the ____ frame, what is most important about any event in an organization is not what actually happened, but what it means.
   a. structural
   b. symbolic
   c. human resources
   d. political

7. The R in an ERP system stands for ____.
   a. resource
   b. rescue
   c. retrofit
   d. reframing

8. A ____ organizational structure is the hierarchy most people think of when picturing an organizational chart.
   a. management
   b. project
   c. functional
   d. matrix

9. Project managers have the ____ authority in a pure project organization and the ____ amount of authority in a pure functional organization.
   a. most/most
   b. most/least
   c. least/most
   d. least/least

10. In a ____ organizational structure, the project manager has little or no authority.
    a. functional
    b. weak matrix
    c. strong matrix
    d. project

11. External stakeholders include ____.
    a. functional managers
    b. support staff
    c. concerned citizens
    d. the project team

12. According to the 2001 Standish Group study, the most important factor for helping a project succeed is ____.
    a. having clear business objectives
    b. experienced project management
    c. user involvement (ngẫu hứng)
    d. executive support

13. Information technology project managers work ____ in an environment in which top management values information technology.
    a. poorly
    b. adequately
    c. slowly
    d. Best (ngẫu hứng)

14. The head of information technology is often called the Chief ____ Officer.
    a. Technology
    b. Executive
    c. Information
    d. Professional

15. The concept and development phases are often referred to as project ____.
    a. feasibility
    b. acquisition
    c. cycles
    d. deliverables

16. The implementation and close-out phases are often referred to as project ____.
    a. feasibility
    b. acquisition
    c. cycles
    d. deliverables

17. A preliminary or rough cost estimate is developed in the ____ phase.
    a. implementation
    b. development
    c. concept
    d. close-out

18. A ____ is a deliverable-oriented document that defines the total scope of the project.
    a. BIOS
    b. CIO
    c. PMP
    d. WBS

19. A definitive cost estimate is most likely to be produced in the ____ phase of a project.
    a. development
    b. implementation
    c. concept
    d. close-out

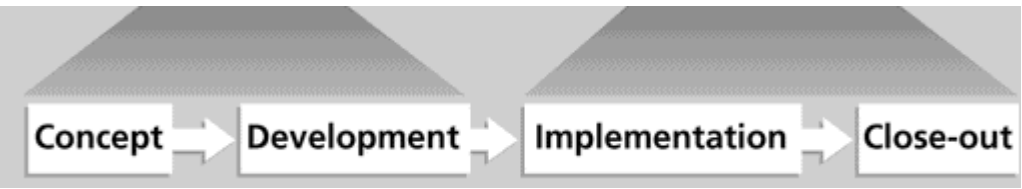
20. The last phase of the project life cycle is ____.
    a. close-out
    b. development
    c. concept
    d. implementation

21. ____ is an example of an ASD life cycle model.
    a. RAD
    b. Waterfall
    c. XP
    d. Prototyping

22. Recently, the term ____ software development has become popular to describe new approaches for managing software development projects.
    a. active
    b. ancillary
    c. atypical
    d. agile

23. Scrum sprints normally last ____ days.
    a. 10
    b. 20
    c. 30
    d. 40

24. Scrum works best for projects using ____ technology.
    a. object-oriented
    b. outdated
    c. database
    d. automotive



25. The figure above shows the phases of the ____ life cycle.
    a. product
    b. project
    c. systems development
    d. adaptive

26. By breaking projects into ____, top management can make sure that the projects are still compatible with the needs of the rest of the company.
    a. products
    b. scrums
    c. data
    d. Phases (ngẫu hứng)

27. Most trade schools, colleges, and universities did not start offering degrees in computer technology, computer science, management information systems, or other information technology areas until the ____.
    a. 1960s
    b. 1970s
    c. 1980s
    d. 1990s

28. The National Science Foundation found that ____ is a skill needed in every major information technology field, from database administrator to network specialist to technical writer.
    a. programming
    b. project management
    c. editing
    d. marketing

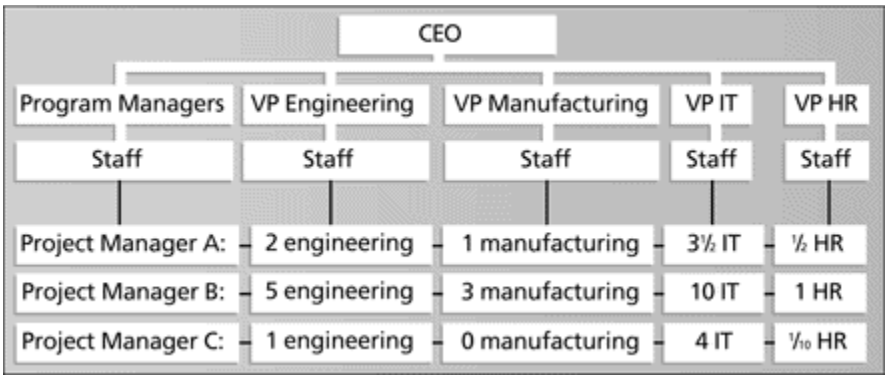
29. Effective project managers are ____.
    a. talkative
    b. visionaries
    c. self-questioning
    d. poor motivators

COMPLETION

1. _____Systems_____ are sets of interacting components working within an environment to fulfill some purpose.

2. Systems _____Management_____ addresses the business, technological, and organizational issues associated with making a change to a system.

3. _____Politics_____ in organizations take the form of competition among groups or individuals for power and leadership.



4. The figure above is an example of a(n) _____functional_____ organizational structure.

5. In a(n) _____project_____ organizational structure, the project manager has almost total authority.

6. Project _____stakeholders_____ are the people involved in or affected by project activities. (ngẫu hứng)

7. Rachel Hollstadt, founder and CEO of a project management consulting firm, suggests that organizations consider adding a new position, a Chief _____Project_____ Officer.

8. A project _____life_____ cycle is a collection of project phases.

9. A(n) _____deliverable_____ is a product produced as part of a project.

10. A systems _____project_____ life cycle is a framework for describing the phases involved in developing information systems.

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

12. In the Scrum life cycle model, repetitions are referred to as _____sprints_____.

13. Communication, people, and leadership skills are sometimes known as _____soft_____ skills.

14. Important issues in information technology related to the _____structure_____ frame are the power shifts from central functions to operating units or from functional managers to project managers. (ngẫu hứng)

ESSAY

1. Describe the structural frame of an organization.

2. What is a RAD life cycle model and how is it used?

3. What is XP? Describe its unique features and disadvantages.

1) 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.

2) Rapid application development is a software development methodology that uses minimal planning in favor of rapid prototyping. A prototype is a working model that is functionally equivalent to a component of the product.

In the RAD model, the functional modules are developed in parallel as prototypes and are integrated to make the complete product for faster product delivery. Since there is no detailed preplanning, it makes it easier to incorporate the changes within the development process.

3)
Extreme Programming (XP) is an agile software development framework that aims to produce higher quality software, and higher quality of life for the development team. XP is the most specific of the agile frameworks regarding appropriate engineering practices for software development.

Advantages:
- The main advantage of Extreme Programming is that this methodology allows software development companies to save costs and time required for project realization

- Simplicity is one more advantage of Extreme Programming projects. The developers who prefer to use this methodology create extremely simple code that can be improved at any moment.

Disadvantages:

- Some specialists say that Extreme Programming is focused on the code rather than on design. That may be a problem because good design is extremely important for software applications.

- One more disadvantage of XP is that this methodology does not measure code quality assurance. It may cause defects in the initial code.

Chapter 3: The Project Management Process Groups: A Case Study

TRUE/FALSE

1. Managing projects often requires making trade-offs among the project's scope, time, and cost.
   T

2. Project managers and teams should reexamine the business need for the project during every phase of the project life cycle to determine if the project is worth continuing.
   T

3. Project teams should never revise project plans during the project life cycle.
   F

4. Project management process groups are isolated events.
   F

5. Process groups occur at varying levels of intensity throughout each phase of a project.
   T

6. Planning processes are especially important for information technology projects.
   T

7. The executing process group should not overlap the other process groups.
   F

8. The ideal outcome of the controlling process group is to complete a project successfully by delivering the agreed-upon project scope within time, cost, and quality constraints.
   T

9. Key outcomes of the executing process group are formal acceptance of the work and creation of closing documents, such as a final project report and lessons-learned report.
   T

10. Some organizations develop their own internal information technology project management methodologies.
    T

11. An organization should put considerable thought into project selection to ensure that it initiates the right kinds of projects for the right reasons.
    T

12. Critical assumptions and constraints are not included in JWD's business case.
    F

13. JWD's business case includes a discussion of potential risks.
    T

14. Unfortunately, JWD's Project Charter did not include a space for comments from the stakeholders.
    T

15. Executing is often the most difficult and unappreciated process in project management.
    F

MODIFIED TRUE/FALSE

1. Planning is one of the five project management process groups. _____**T**_____

2. Project management is an integrative endeavor; decisions and actions taken in one knowledge area at a certain time usually affect other knowledge areas. _____**T**_____

3. Closing processes take place during each phase of a project. _____**F**____(**Initiating)**_____

4. Normally, the planning processes require the most resources and time. _____**F**__(**Executing)**_____

5. Research suggests that companies working to implement best practices should spend at least 50 percent of project time in initiating and planning activities. _____**F**__**(10)**_____

6. The executing process group involves taking the actions necessary to complete the work described in the planning activities. _____**T**_____

7. Controlling processes overlap all of the other project management process groups.
   _____**T**_____

8. During the executing process group, the project team works to gain acceptance of the end product and bring the phase or project to an orderly end. _____**F**__**(Closing)**_____

9. An organization may initiate information technology projects for several reasons, but the most important reason is to support business objectives. _____**T**_____

10. The PMBOK Guide 2000 lists project scope management as the only knowledge area involved in initiation. _____**T**_____

11. According to JWD's business case, the company will improve profitability by reducing internal costs by providing standard tools, techniques, templates, and project management knowledge to all internal consultants. _____**T**_____

12. As part of the Team Contract, the staff at JWD decided to meet less frequently the first month. _____**?**_____

13. The least important output of project execution is work results, or delivery of products and services. _____**F__(Most)**_____

14. One type of project report is called a(n) milestone report. _____**F__(Status/Resource/ Board/Executive/Risk)**

MULTIPLE CHOICE

1. Project management consists of ____ knowledge areas.
   a. two
   b. five
   c. nine
   d. twenty

2. One of project management's knowledge areas is ____.
   a. procurement management
   b. technology
   c. information
   d. quantity

3. Projects involve ____ project management process groups.
   a. two
   b. five
   c. seven
   d. nine

4. One of the project management process groups is ____.
   a. initiating
   b. sending
   c. transferring
   d. combining

5. ____ processes include actions to begin or end projects and project phases.
   a. Planning
   b. Controlling
   c. Executing
   d. Initiating

6. ____ processes include devising and maintaining a workable scheme to ensure the project addresses the company's needs.
   a. Planning
   b. Controlling
   c. Executing
   d. Initiating

7. A common ____ process is a performance review during which any necessary changes are identified, and a staff member is selected to analyze and manage those changes.
   a. executing
   b. controlling
   c. initiating
   d. planning

8. ____ processes include formalizing acceptance of the phase or project and ending it efficiently.
   a. Planning
   b. Controlling
   c. Closing
   d. Executing

9. Examples of ____ processes include developing the project team, providing leadership, assuring project quality, disseminating information, procuring necessary resources, and delivering the actual work.
   a. initiating
   b. planning
   c. closing
   d. executing

10. The PMBOK Guide 2000 identifies ____ outputs.
   a. two
   b. four
   c. eight
   d. ten

11. Clarification of ____ is one of the four outputs listed in the PMBOK Guide 2000.**?????????**
   a. needs
   b. issues
   c. constraints
   d. demands

12. Some organizations require an approved corporate project request and an initial and detailed business case in a phase called ____-project initiation.
   a. pre
   b. post
   c. after
   d. semi

13. According to JWD's business objective, the company's strategic goals include continuing growth and ____.
   a. gaining marketshare
   b. collaboration
   c. portability
   d. profitability

14. The main purpose of a project plan is to ____ project execution.
   a. prohibit
   b. guide
   c. follow
   d. eliminate

15. One of the outputs related to a project's scope is a(n) ____.
   a. activity list
   b. cost estimate
   c. project schedule
   d. WBS

16. A planning process that belongs to the knowledge area of time is ____ definition.
   a. scope
   c. activity

b. cost
d. quality

17. Creating an organizational ____ is an output involved in organizational planning.
a. role
b. chart
c. plan
d. directory

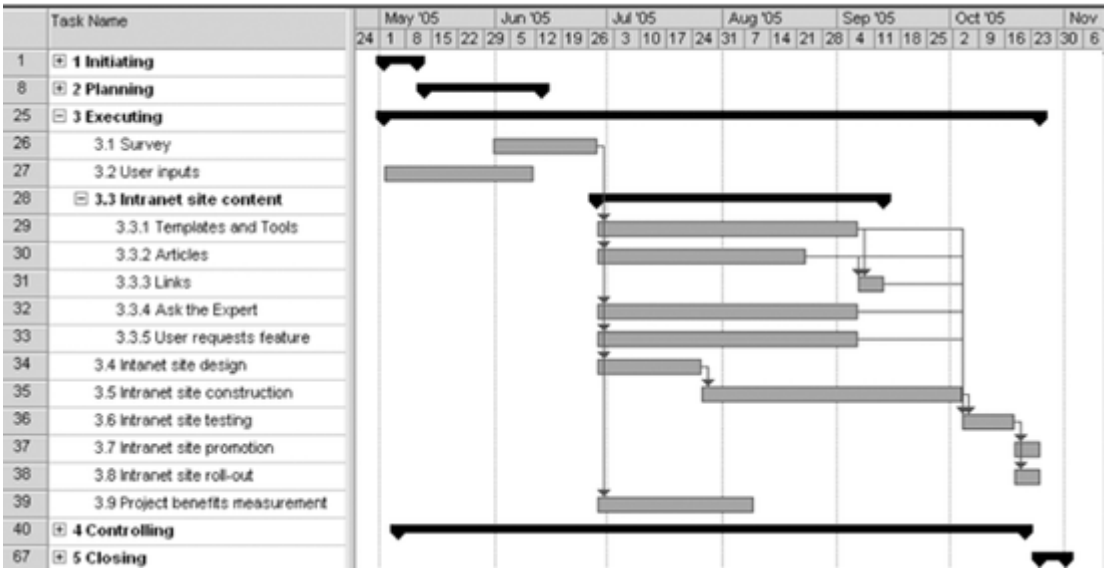
18. Creating a(n) ____ management plan is an output related to the organizational planning of human resources.
a. staffing
b. risk
c. priority
d. communications

19. The scope statement lists the importance of documenting the product characteristics and requirements, summarizes the ____, and describes project success criteria.
a. questions
b. issues
c. deliverables
d. techniques

20. After the project title, date, and the name of the person who prepared the statement, the next section of the scope statement is the Project ____.
a. Characteristics
b. Requirements
c. Deliverables
d. Justification

21. WBS stands for the Work ____ Structure.
a. Bulletin
b. Background
c. Building
d. Breakdown

22. On JWD's WBS, status reports are part of the ____ stage.
a. planning
b. controlling
c. executing
d. closing



23. The figure above is an example of a ____ chart.
a. Gantt
b. Hierarchy
c. Summary
d. WBS

24. The highlighted boxes in the chart above represents tasks on the ____ path.
a. important
b. critical
c. information
d. executive

25. Executing the project involves taking the actions necessary to ensure that activities in the project plan are ____.
a. initiated
b. deleted
c. completed
d. considered

26. It usually takes the most resources to accomplish project ____.
a. planning
b. hiring
c. input
d. execution

MILESTONE	DATE	STATUS	RESPONSIBLE
Intranet site promotion completed	10/25/05		Erica
Intranet site roll-out completed	10/25/05		Kevin
Controlling			
Status reports	Every Friday	All	
Closing	10/25/05		
Final project presentation completed	10/27/05		Erica

27. The figure above represents a portion of a ____ report.
a. calendar
b. Gantt
c. planning
d. milestone

28. ____ is the process of measuring progress towards project objectives, monitoring deviation from the plan, and taking corrective action to match progress with the plan.
a. Controlling
b. Planning
c. Executing
d. Reforming

29. Controlling affects ____ other phases of the project life cycle.
a. no
b. some
c. all
d. two

30. The ____ process includes verifying that all of the deliverables are complete and often includes a final presentation.
    a. initiating
    b. closing
    c. planning
    d. controlling

COMPLETION

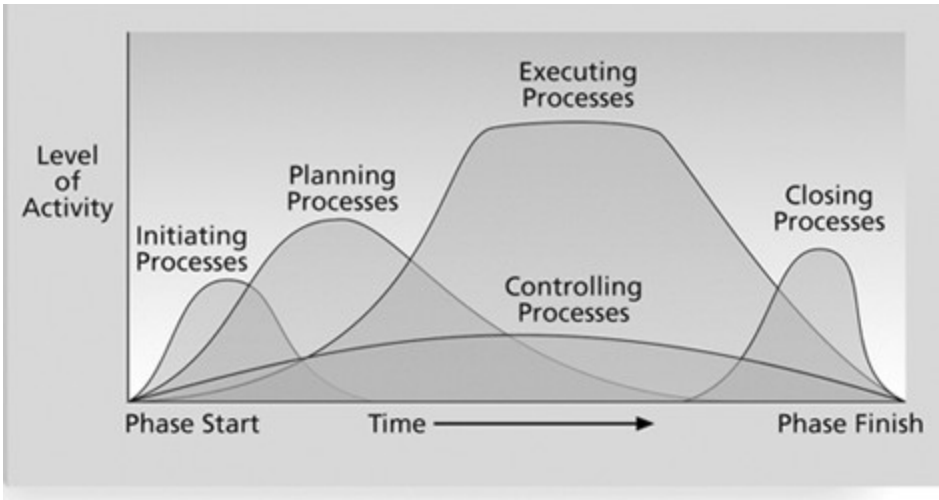
1. A(n) _____**Process**_____ is a series of actions directed toward a particular result.

2. Project management process _____**groups**_____ progress from initiation activities to planning activities, executing activities, controlling activities, and closing activities.

3. During _____**initiating**_____ processes for a new project, the organization recognizes that a new project exists.

4. Business cases and project _____ **originally** _____ identify the main stakeholders for a project, justify the project, and specify the high-level scope, time, and cost goals of the project.

5. Usually, the project manager and key team members are selected during the ____executing _____ process group.



6. The figure above illustrates the ____**overlap**_____ of process groups in a phase.

7. **Monitoring and controlling**__ processes measure progress toward the project objectives, monitor deviation from the plan, and take corrective action to match progress with the plan.

8. The organization's strategic ___Charter_____ expresses the vision, mission, goals, objectives, and strategies of the organization and provides the basis for information technology project planning.

9. A Project Charter includes a project start date and a projected ____**completion**_____ date.

10. JWD Consulting believed in using team _____**contracts**_____, that everyone feels comfortable signing, for all projects to help promote teamwork and clarify team communications.

11. A project ____**milestone**_____ can be added to the end of a project if you are not confident that you will meet a schedule goal.

12. Preparing the final project presentation occurs during the _____ process of the project.

13. Preparing a WBS occurs during the _____**executing**_____ process of the project.

14. Preparing the project charter occurs during the _____**planning**_____ process of the project.

ESSAY

1. Discuss why Blue Cross Blue Shield of Michigan decided to develop their own internal information technology project management methods. What were some of their efforts?

2. Discuss some of the human resource issues that can occur during project execution. Give examples from the JWD project and describe how they were resolved.

3. Discuss the importance of planning a smooth transition of the project into the normal operations of the company. Give examples from the JWD case study.

Chapter 4: Project Integration Management

TRUE/FALSE

1. Integrated change control involves coordinating changes across the entire project. TRUE

2. Project integration management depends on activities from only five of the eight other knowledge areas. FALSE

3. Project integration management includes interface management. TRUE

4. Project integration management must occur within the context of a particular project, not the entire organization. FALSE

5. Project plans should be dynamic, flexible, and subject to change. TRUE

6. A stakeholder analysis should be part of the overall project plan. TRUE

7. Project integration management views project planning and execution as intertwined and inseparable activities. TRUE

8. Once a project plan is written, it should not be updated. FALSE

9. Project managers may sometimes find it necessary to break the rules to produce project results in a timely manner. TRUE

10. To determine that a change has occurred, the project manager must know the status of key project areas at all times. False ingration

11. Change requests are rare on projects. FALSE

12. Project managers must focus on the big picture. TRUE

13. Project integration management is often viewed as the least important project management knowledge area. FALSE

14. Project documentation should not be shared over the Internet. FALSE

MODIFIED TRUE/FALSE

1. Project plan execution involves putting the results of other planning processes into a consistent, coherent document. _____development_____

2. The number of interfaces can increase logarithmically as the number of people involved in a project increases. _____exponentially_____

3. Every project should have a unique name. _____TRUE_____

4. A responsibility assignment matrix is a tool often used for displaying which individuals are responsible for each segment of the project. _____TRUE_____

5. The project contours section of the project plan describes how to monitor project progress and handle changes. _____controls_____

6. The application area of the project directly affects project development because the products of the project are produced during this process. _____execution_____

7. Those who will do the work should plan the work. _____TRUE_____

8. PDF files are short for Portable Design Format. _____Document_____

9. Microsoft Project 2002 is an example of project management software. _____TRUE_____

10. It is important that project managers exercise discipline in managing the project to help minimize the number of changes that occur. _____TRUE_____

11. The budget section of the project plan lists the planned dates for completing key deliverables. _____schedule_____

12. A change control bureau (CCB) is a formal group of people responsible for approving or rejecting changes to a project. _____board_____

13. E-mail, real-time databases, and the Web make it easier to disseminate the most current project information. _____TRUE_____

14. For large projects, organizations are likely to benefit most from high-end software tools. _____TRUE_____

MULTIPLE CHOICE

1. There are ____ main processes involved in project integration management.
   a. two
   b. three
   c. four
   d. five

2. Projects that are somewhat ambiguous at the beginning are often described as having a fuzzy ____.

a. high-end
b. rear-end
c. back-end
d. front-end

3. Most people consider project integration ____ the key to overall project success.
a. management
b. programmers
c. clients
d. marketers

4. ____ management involves identifying and managing the points of interaction between various elements of the project.
a. Interlace
b. Interproject
c. Interface
d. Interpreted

5. The ____ process of project integration management is project plan development.
a. first
b. second
c. third
d. fourth

6. In order to integrate across project management knowledge areas and across the organization, there must be a good ____ plan.
a. floor
b. project
c. marketing
d. coding

7. Every project needs a ____.
a. tailor-made software package
b. Gantt chart
c. sponsor
d. sales team

8. The description of the project in the project plan should be written in ____ terms.
a. layperson's
b. technical
c. financial
d. legal

9. The project ____ should always be the contact for project information.
   a. plan
   b. sales executive
   c. programmer
   d. manager

10. Project controls should be described in the ____ section of the project plan.
   a. organizational
   b. management and technical approaches
   c. overview
   d. project schedule

11. The acronym CASE stands for Computer Aided Software ____.
   a. Engineering
   b. Experimentation
   c. Entertainment
   d. Education

12. The Institute of Electrical and Electronics Engineers (IEEE) Standard 1058.1 describes the contents of a(n) ____.
   a. Gantt chart
   b. Object-oriented Management Plan
   c. Software Project Management Plan
   d. Software Development Plan

13. The ____ process of project integration management is project plan execution.
   a. first
   b. second
   c. third
   d. fourth

14. The majority of time on a project is usually spent on ____.
   a. analysis
   b. testing
   c. development
   d. execution

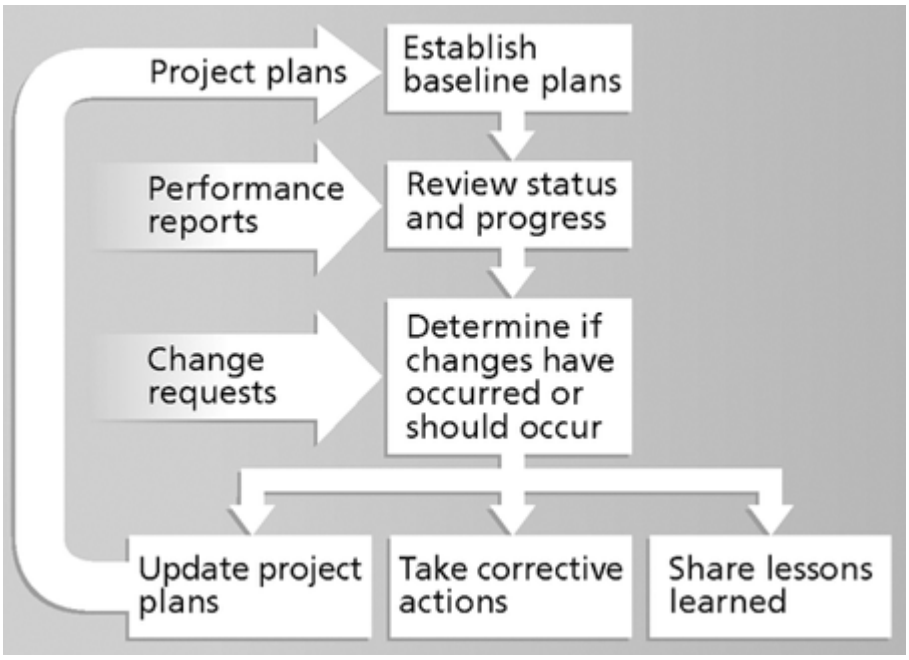
15. The main function of creating project plans is to guide project ____.
    a. marketing
    b. development
    c. interface
    d. execution

16. Most systems analysts begin their careers as ____.
    a. programmers
    b. project managers
    c. clients
    d. sales representatives

17. Good project plan execution also requires a ____ organizational culture.
    a. large
    b. distracted
    c. supportive
    d. wealthy

18. ResNet was the first large information technology project at Northwest Airlines led by a(n) ____ manager, and it was a roaring success.
    a. financial
    b. business
    c. project
    d. accounting

19. Project managers or other team members can create Gantt charts using software such as Microsoft ____.
    a. Project 2002
    b. Windows XP
    c. Internet Explorer
    d. Windows NT



20. The figure above shows a schematic of the ____ process
    a. project integration management
    c. systems development life cycle
    b. project life cycle?
    d. integrated change control

21. The project ____ provides the baseline for identifying and controlling project changes.
    a. manager
    c. deliverable
    b. plan
    d. software

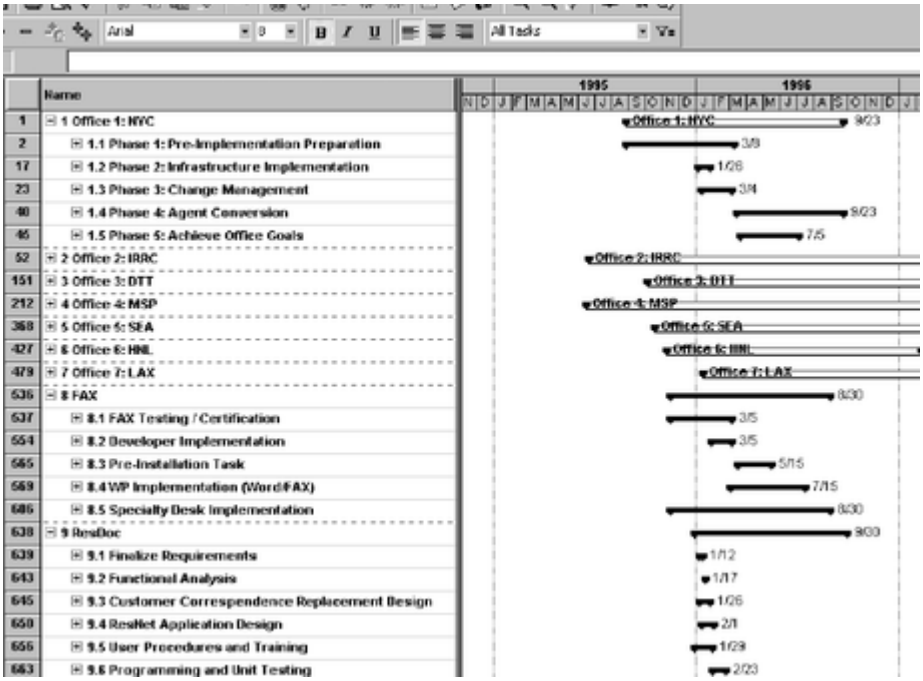
22. Information technology often used to be referred to as data ____.
    a. transference
    c. automation
    b. interpretation
    d. management

23. Project managers should use ____ performance reports to help identify and manage project changes.
    a. written and oral
    c. oral
    b. written
    d. neither written nor oral

24. The goal of a ____ meeting is to communicate what is most important on the project quickly.
    a. stand-up
    b. front-end
    c. pack-in
    d. get-out

25. It is the ____ responsibility to integrate all project changes so that the project stays on track.
    a. sales representative's
    b. client's
    c. project manager's
    d. programmer's

26. Project management is a process of ____ communication and negotiation.
    a. reducing
    b. constant
    c. disregarding
    d. occasional



27. The above figure shows a software application tool's creation of a(n) ____.
    a. workflow diagram
    b. object model
    c. Gantt chart
    d. project life cycle

28. The main purpose of a project plan is to facilitate ____.
    a. explanation
    b. stasis
    c. thought
    d. action

COMPLETION

1. Project plan _____execution_____ involves carrying out the project plan by performing the activities included in it.

2. Project _____integration_____ management involves coordinating all of the other project management knowledge areas throughout a project's life cycle.

3. A(n) _____project management_____ plan is a document used to coordinate all project planning documents and help guide a project's execution and control.

4. Software packages, pieces of hardware, technical reports, and training materials are examples of _____deliverables_____.

5. The project _____staffing_____ section of the project plan describes the number and types of people required for the project.

6. A stakeholder _____register_____ documents information such as key stakeholders names and organizations, their roles on the project, and unique facts about each stakeholder.

7. JAD stands for Joint _____Application_____ Design.

8. A work _____authorization_____ system is a method for ensuring proper communications so that qualified people do the work at the right time and in the proper sequence.

9. _____Integrated_____ change control involves identifying, evaluating, and managing changes throughout the project life cycle.

10. _____Project status_____ reports provide status information on how project execution is going.

11. A change _____control_____ system is a formal, documented process that describes when and how official project documents may be changed.

12. Someone who controls and documents the functional and physical characteristics of the project's products is referred to as a configuration _____management_____ specialist.

13. In Microsoft Project, you can click on the _____arrow_____ symbols to drill down to the next level of detail.

14. A project manager's primary focus should be on project _____integration_____ management.

ESSAY

1. What should be included in the detailed schedule section of the project plan?

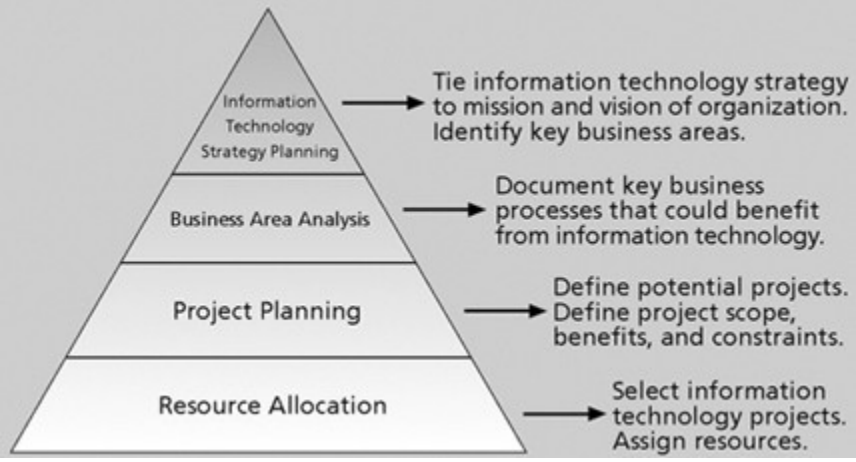
2. Describe status review meetings.

3. Describe configuration management and configuration management specialists.

Chapter 5: Project Scope Management

TRUE/FALSE

1. Deliverables can be product-related, such as a piece of hardware or a software module, or process-related, such as a planning document or meeting minutes.T



2. The figure above illustrates the information technology execution stages.F

3. Managers from outside the information technology department should not assist in the information technology planning process.F

4. After identifying business areas to focus on, the next step in the information technology planning process is to perform a business area analysis.F

5. A 2002 study found a direct correlation between closer business and information technology alignment and reporting structure.

6. A 2002 study found that the consistent use of information technology standards increased a company's application development costs by 41 percent per user.

7. Information systems are not central to business strategy.F

8. Information systems can help an organization support a strategy of being a low-cost producer. T

9. Because most organizations face few problems or opportunities for improvement, they do not need a strategic plan to guide the project selection process. F

10. Selecting projects is not an exact science, but it is a critical part of project management. T

11. Projects that address broad organizational needs are much less likely to be successful because they aren't specific enough. F

12. It is often difficult to provide a strong justification for many information technology projects related to broad organizational needs. T

13. As projects progress, the organization must reevaluate the need, funding, and will for each project to determine if the projects should be continued, redefined, or terminated. T

14. It is often more difficult to get approval and funding for projects that address problems or directives because the organization does not need to respond to these categories of projects. F

15. Some projects can be completed very quickly--within a few weeks, days, or even minutes. T

16. The organization should not complete high-priority projects first if a low- or medium-priority project could be finished in less time. F

17. Usually there are many more potential information technology projects than an organization can undertake at any one time, so it is critical to work on the most important ones first.

18. Financial considerations should not be an important aspect of the project selection process, even during tough economic times. F

19. You can determine a project's internal rate of return (IRR) by finding what discount rate results in an NPV of zero for the project. T

20. A payback on a project in less than a year is normally considered very good. F

21. One basic principle that applies to creating any good WBS is that a unit of work should appear in several different places in the WBS.F

22. A WBS item should be the responsibility of only one individual, even though many people may be working on it.F

23. Project team members should be involved in developing the WBS to ensure consistency and buy-in.T

24. Lack of user input is among the least important factors contributing to project failure.

MODIFIED TRUE/FALSE

1. Project deliverables management ensures that the project team and stakeholders have the same understanding of what products the project will produce and what processes the project team will use to produce them. _F-scope_____

2. Key project stakeholders, such as the customer and sponsor for the project, formally accept the deliverables of the project during scope definition. _F-verification_____

3. A business area analysis documents business processes that are central to achieving strategic goals and aids in discovering which ones could most benefit from information technology.
T_____

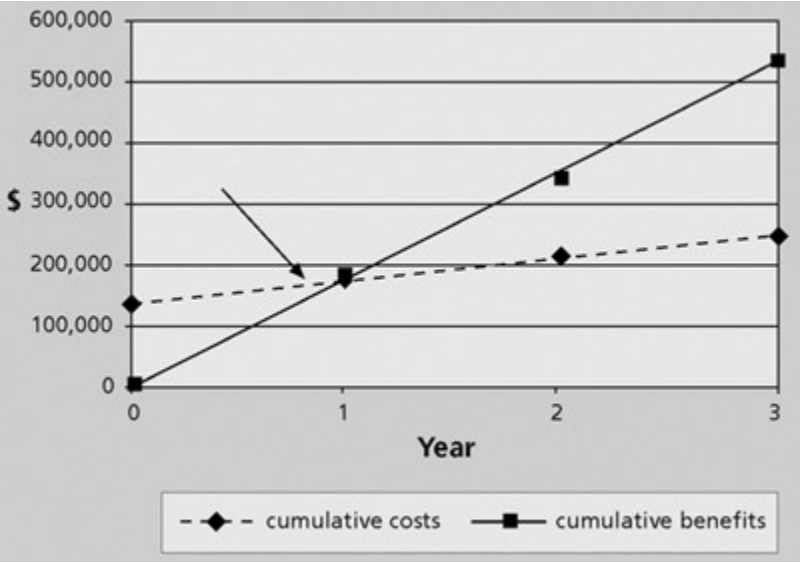
4. The first step in the information technology planning process is selecting which projects to do and assigning resources for working on them. F-last_____

5. Hacket Best Practices found that companies in which the Chief Information Officer (CIO) reports directly to the Chief Executive Officer (CEO) lowered their operational support costs.
T_____

6. It is often impossible to estimate the financial value of broad organizational projects, but everyone agrees that they do have a high value.T _____

7. Even though many information technology projects can be completed quickly, it is still important to prioritize them.T _____

8. Payment period is the amount of time it will take to recoup, in the form of net cash inflows, the net dollars invested in a project.F-payback _____



9. In the figure above, the point at which the dotted line and the solid line intersect is the point of investment. _____

10. A(n) weighted scoring model is a tool that provides a systematic process for selecting projects based on many criteria.T _____

11. Instead of project charters, some organizations initiate projects using a simple letter of agreement, while others use formal contracts.T _____

12. Project payback planning involves developing documents to provide the basis for future project decisions, including the criteria for determining if a project or phase has been completed successfully. _____

13. The section of the project scope management plan describing what determines project success lists the quantifiable criteria to meet, such as cost, schedule, and quality measures. _____

14. Since the WBS defines the total scope of the project, some project management experts believe that work should not be done on a project if it is not included in the WBS. T_____

15. Some project managers suggest creating a WBS using the project management process groups of initiating, planning, executing, controlling, and developing as level 1 in the WBS. F-closing_____

16. It is important to involve the entire project team and customer in creating and reviewing the WBS. T_____

17. The analogy approach to creating a WBS is a more visual, less structured approach to defining and then grouping tasks and can unlock creativity among individuals. F-mind mapping_____

18. The WBS should be fairly inflexible in order to properly maintain control of the work content in the project according to the scope statement. T_____

19. Many information technology projects suffer from scope bloat, the tendency for project scope to keep getting bigger and bigger.F-creep _____

MULTIPLE CHOICE

1. CIO refers to the Chief ____ Officer.
   a. Inspection
   b. Information
   c. Interpretive
   d. Isolation

2. Many factors involved with project success, such as user involvement, clear business objectives, minimized scope, and firm basic requirements are elements of project ____ management.
   a. scope
   b. funding
   c. planning
   d. initiation

3. The term ____ refers to all the work involved in creating the products of the project and the processes used to create them.
   a. enactment
   b. enterprise
   c. scope
   d. development

4. The term ____ describes a product produced as part of a project.
   a. input
   b. output
   c. process
   d. deliverable

5. There are ____ main processes involved in project scope management.
   a. two
   b. three
   c. five
   d. nine

6. ____ involves committing the organization to begin a project or continue to the next phase of a project.
   a. Scope planning
   b. Initiation
   c. Scope definition
   d. Scope change control

7. A project ____ is a key document for formally recognizing the existence and providing a broad overview of a project.
   a. charter
   b. plan
   c. action
   d. deliverable

8. Scope ____ involves developing documents to provide the basis for future project decisions, including the criteria for determining if a project or phase has been completed successfully.
   a. definition
   b. change control
   c. verification
   d. planning

9. Scope ____ involves subdividing the major project deliverables into smaller, more manageable components.
   a. planning
   b. definition
   c. verification
   d. change control

10. The project team creates a work breakdown structure (WBS) during the scope ____ process.
   a. definition
   b. change control
   c. initiation
   d. planning

11. Scope ____ involves formalizing acceptance of the project scope.
   a. definition
   b. planning
   c. verification
   d. change control

12. Scope changes, corrective action, and lessons learned are outputs of the scope ____ process.
   a. verification
   b. initiation
   c. planning
   d. change control

13. The term “SWOT” analysis refers to analyzing Strengths, Weaknesses, Opportunities, and ____.
   a. Treats
   b. Threats
   c. Time
   d. Traffic

14. Many information systems are classified as ____ because they directly support key business strategies.
   a. secret
   b. ancillary
   c. profitable
   d. strategic

15. One method for selecting projects based on broad organizational needs is to determine whether they first meet three important criteria: need, funding, and ____.
   a. value
   b. will
   c. time
   d. deliverables

16. ____ are undesirable situations that prevent an organization from achieving its goals.
   a. Problems
   b. Directives
   c. Opportunities
   d. Assets

17. ____ are chances to improve the organization.
    a. Problems
    b. Directives
    c. Initiatives
    d. Opportunities

18. ____ are new requirements imposed by management, government, or some external influence.
    a. Objectives
    b. Goals
    c. Directives
    d. Incentives

19. EDI stands for ____ data interchange.
    a. economic
    b. electronic
    c. event-driven
    d. effective

20. A(n) ____ rate is also called the required rate of return, hurdle rate, or opportunity cost of capital.
    a. development
    b. discount
    c. opportunity
    d. availability

21. The formula for the discount factor is ____ where r is the discount rate and t is the year.
    a. $1(1+r)^t$
    b. $t/(1+r)$
    c. $1/(1+r)^t$
    d. $r(1+t)$

22. ROI stands for return on ____.
    a. interest
    b. information
    c. intelligence
    d. investment

23. A balanced ____ is a methodology that converts an organization's value drivers, such as customer service, innovation, operational efficiency, and financial performance, to a series of defined metrics.
    a. scorecard
    b. Gantt chart
    c. equation
    d. charter

24. A project ____ is a document that formally recognizes the existence of a project and provides direction on the project's objectives and management.
    a. goal
    b. definition
    c. charter
    d. initiative

25. A scope ____ is a document used to develop and confirm a common understanding of the project scope.
    a. plan
    b. chart
    c. initiative
    d. statement

26. The project ____ describes the business need that sparked creation of the project.
    a. plan
    b. justification
    c. budget
    d. strategy

27. The process of breaking work into manageable pieces is called scope ____.
    a. definition
    b. planning
    c. orientation
    d. development

28. A work ____ structure is a deliverable-oriented grouping of the work involved in a project that defines the total scope of the project.
    a. definition
    b. development
    c. breakdown
    d. benefit

29. A(n) ____ is often depicted as a task-oriented family tree of activities, similar to an organizational chart.
    a. ROI
    b. Gantt chart
    c. Internet site
    d. WBS

30. A WBS can be shown in ____ form as an indented list of tasks that shows the same groupings of the work.
    a. pie chart
    b. tabular
    c. Gantt chart
    d. bar graph

31. A(n) ____ package is a task at the lowest level of the WBS which generally should represent roughly eighty hours of effort.
    a. benefit
    b. investment
    c. work
    d. production

32. Tasks under initiating include selecting a project manager, forming the project ____, and developing the project charter.
    a. team
    b. goal
    c. budget
    d. liturgy

33. The ____ tasks vary the most from project to project, but many of the tasks under the other project management process groups would be similar for all projects.
    a. initiating
    b. closing
    c. planning
    d. executing

34. Tasks under planning include developing a(n) ____ statement, creating a WBS, and developing and refining other plans, which would be broken down in more detail for a real project.
    a. scope
    b. budget
    c. independent
    d. closing

35. One approach to developing work breakdown structures is to use ____.
    a. formulas
    b. investments
    c. guidelines
    d. contractors

36. When constructing a WBS, in the ____ approach, you use a similar project's WBS as a starting point.
    a. top-down
    c. guideline

b. bottom-up
d. analogy

37. To use the ____ approach in creating a WBS, start with the largest items of the project and break them into their subordinate items.
a. top-down
b. bottom-up
c. analogy
d. mind-mapping

38. When constructing a WBS, in the ____ approach, team members first identify as many specific tasks related to the project as possible and then aggregate the specific tasks and organize them into summary activities, or higher levels in the WBS.
a. top-down
b. bottom-up
c. analogy
d. mind-mapping

39. The ____ approach is a technique that uses branches radiating out from a core idea to structure thoughts and ideas.
a. top-down
b. bottom-up
c. analogy
d. mind-mapping

40. The tendency for project scope to keep getting bigger and bigger is called ____ creep.
a. project
b. process
c. scope
d. guideline

41. The 1995 Standish Group CHAOS study found that key factors associated with information technology project success include user involvement and a clear statement of project ____.
a. budget
b. requirements
c. values
d. staff

42. Research and practice indicate that in order to verify project scope and control scope change, you need to improve user ____ and reduce incomplete and changing requirements and specifications.
a. output
b. technology
c. input
d. safety

43. JAD stands for joint ____ design.
a. accuracy
b. availability
c. artistic
d. application

44. Common techniques for selecting projects include focusing on broad organization needs, categorizing projects, performing financial analyses, developing weighted scoring models, and using balanced ____.
a. pie charts
b. scorecards
c. Gantt charts
d. portfolios

45. A type of software, called a(n) ____ management tool, aids in capturing and maintaining requirements information, provides immediate access to the information, and assists in establishing necessary relationships between requirements and information created by other tools.

a. project
b. regulations
c. information
d. requirements

COMPLETION

1. Project _____scope_____ management includes the processes involved in defining and controlling what is or is not included in a project.

2. Strategic _____planning_____ involves determining long-term objectives by analyzing the strengths and weaknesses of an organization, studying opportunities and threats in the business environment, predicting future trends, and projecting the need for new products and services.

3. One common technique for selecting among possible projects is using a(n) _____weighted_____ scoring model.

4. One method for selecting among potential projects is implementing a balanced _____scorecard_____.

5. One categorization for information technology projects is based on the _____time_____ it will take to complete a project or the date by which it must be done.

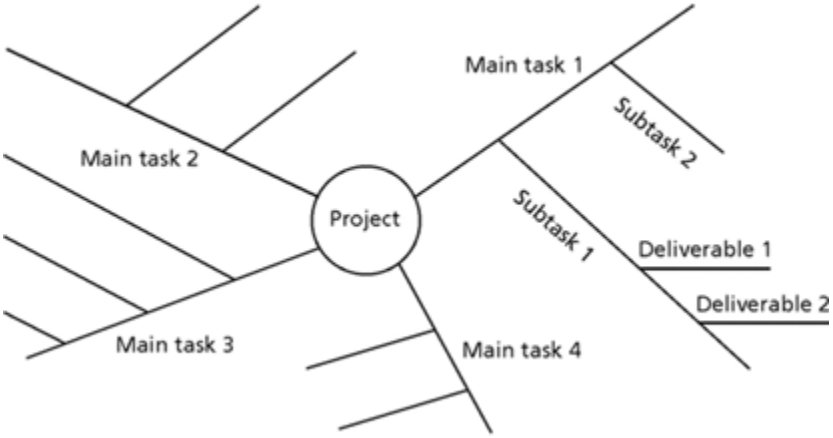
6. NPV stands for net _____present_____ value.

7. The term cash _____flow_____ stands for benefits minus costs or income minus expenses.

8. A(n) _____required_____ rate is the minimum acceptable rate of return on an investment.

9. The annual discount _____factor_____ is a multiplier for each year based on the discount rate and year.

10. Instead of writing down tasks in a list or immediately trying to create a structure for tasks, _____mind mapping_____ allows people to write and even draw pictures of ideas in a non-linear format in creating a WBS.



11. The figure above is a sample of the _____ technique for creating a WBS.

12. Scope ____verification_____ involves formal acceptance of the project scope by the stakeholders.

13. In order to minimize scope change _____, it is crucial to do a good job of verifying project scope.

14. __Prototyping_____ involves developing a working replica of the system or some aspect of the system.

15. Use case ___modeling_____ is a process for identifying and modeling business events, who initiated them, and how the system should respond to them.

16. Computer Aided Software ___Engineering_____ tools or other technologies can assist in maintaining a repository for project data.

17. ___Paypack_____ analysis is the preferred financial measure for selecting projects.

ESSAY

1. Why should a company invest in information technology?

2. What are the steps involved in determining NPV? Include the mathematical formula for NPV.

3. What is involved in the process of creating a weighted scoring model? What are some of the criteria you should consider?

Chapter 6: Project Time Management

TRUE/FALSE

A 222 percent time overrun means that a project that was planned to take one year ended up taking 1.22 years to complete.
T

2. Schedule control involves analyzing activity sequences, activity duration estimates, and resource requirements to create the project schedule.
T

3. Ideally, the project team and key stakeholders first define the project budget and then the time or schedule for the project.
T

4. The WBS is often dissected during the activity definition process as the project team members further define the activities required for performing the work.
T

5. Determining the relationships or dependencies between activities has a significant impact on developing and managing a project schedule.
T

6. Discretionary dependencies are sometimes referred to as hard logic.
F

7. Most project management software uses the precedence diagramming method.
T

8. Duration relates to the effort estimate, not the time estimate.
F

9. Gantt charts normally do not show relationships among project activities, as network diagrams do.
T

10. A slipped milestone means the milestone activity was actually completed earlier than originally planned.
F

11. Even though the critical path is the longest path, it represents the shortest time it takes to complete a project.
T

12. There cannot be more than one critical path on a project.

F

13. The main disadvantage of fast tracking is that it can end up lengthening the project schedule since starting some tasks too soon often increases project risk and results in rework.
T

14. It is impossible to find the critical path for a project without considering resource allocation.
T

15. Critical chain scheduling assumes that resources do not multitask.
T

16. PERT is the best probabilistic method for assessing risk.
F

17. Not every single item on the WBS needs to be on the network diagram.
T

18. As a rule of thumb, all arrowheads should face toward the left on an AOA network diagram.
F

19. The critical path is concerned only with the time dimension of a project, not with the most critical activities.
T

20. Project time management is often cited as the main source of conflict on projects.
T

MODIFIED TRUE/FALSE

1. Budget is the variable that has the least amount of flexibility on a project.
_____F(Time)_____

2. The triple constraint of project management involves balancing scope, time, and social goals.
_____F(cost)_____

3. The three project time management processes of activity definition, activity sequencing, and activity duration estimating are the basis for creating a project schedule. _____T_____

4. Activity definition usually results in the project team developing a more detailed WBS and supporting explanations. _____T_____

5. Controls or tasks are elements of work performed during the course of a project: they have expected durations, costs, and resource requirements. _____

6. After defining project activities, the next step in project time management is activity budgeting.
_____F(duration)_____

7. Mandatory dependencies are sometimes called soft dependencies.
_____F(logical)_____

8. Discretionary dependencies should be used with care since they may limit later scheduling options.
_____T_____

9. Network diagrams are the preferred technique for showing activity sequencing.
_____T_____

10. Malleable activities have no duration and no resources but are occasionally needed on AOA network diagrams to show logical relationships between activities.
_____F(Dummy activity)_____

11. Gantt charts provide a standard format for displaying project schedule information by listing project activities and their corresponding start and finish dates in a calendar format.
_____T_____

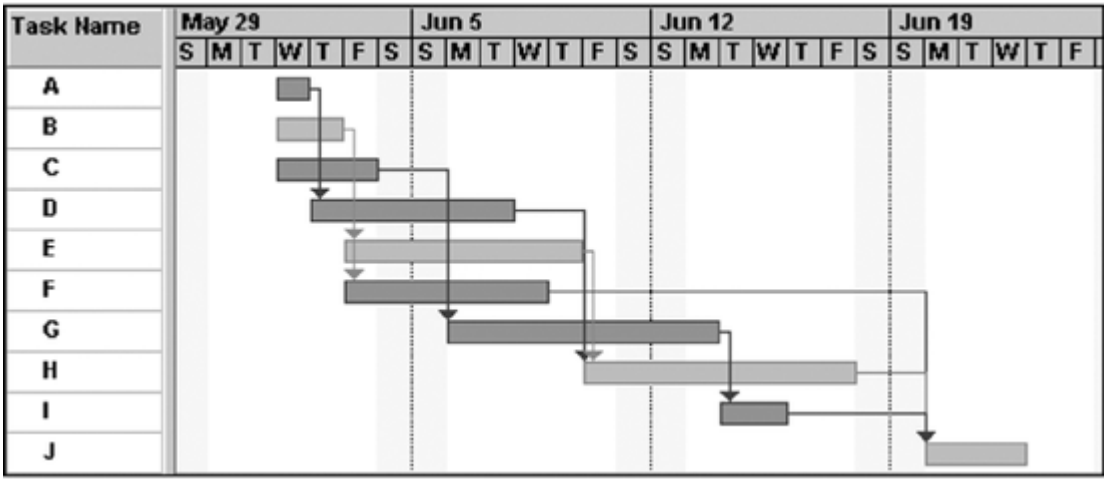
12. The sudden start date for an activity is the earliest possible time an activity can start based on the project network logic. _____

13. Primary chain scheduling is a method of scheduling that considers limited resources when creating a project schedule and includes buffers to protect the project completion date.
_____F(Critical)_____

14. Multitasking occurs when a resource works on more than one activity at a time.
_____T_____

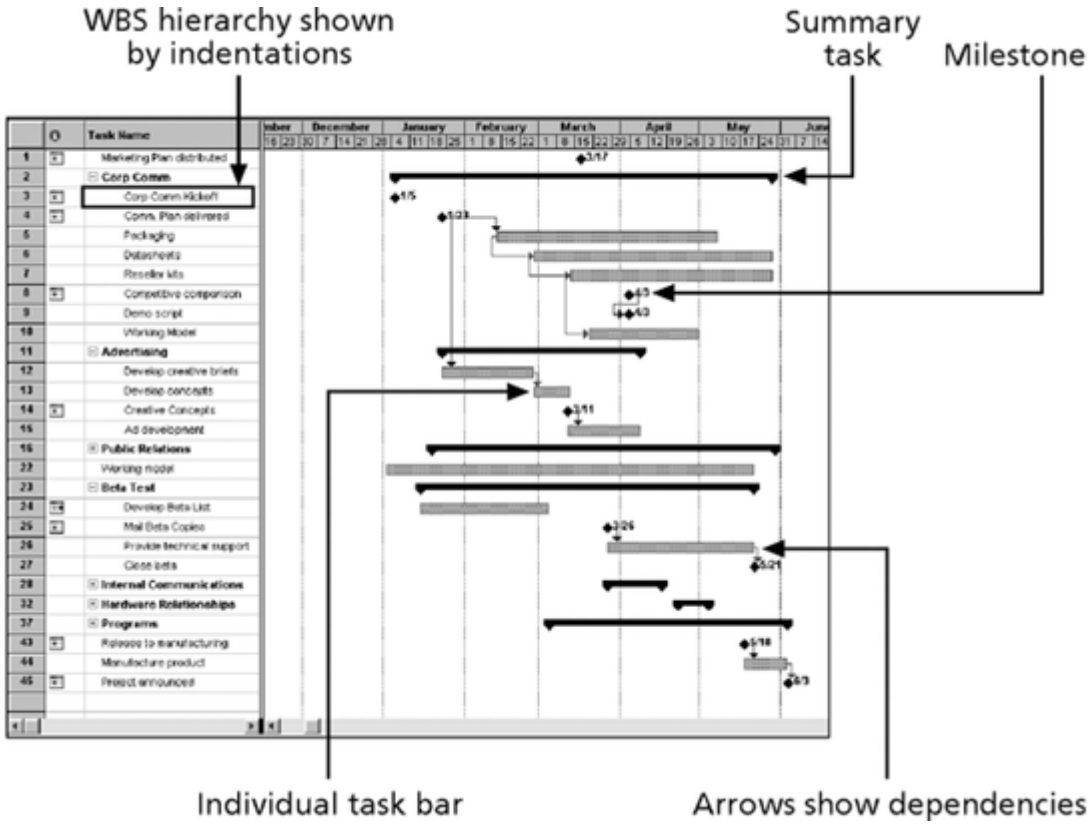
15. Gantt's Law states that if something can go wrong, it will. _____F(Murphy)_____

16. Feeding buffers are additional time added before tasks on the critical chain that are preceded by non-critical-path tasks. _____T_____



17. The figure above is an example of a(n) PDM chart for Project X. _____

18. The activities on the Gantt chart should coincide with the activities on the WBS.
_____T_____



19. In the figure above, the arrows show alliances. _____T_____

MULTIPLE CHOICE

1. According to the 1995 CHAOS report, unsuccessful information technology projects that were planned to take one year ended up taking ____ years to complete.
   a. 1.4
   b. 1.8
   c. 2.2
   d. 2.6

2. Overall, ____ issues cause the most conflict over the life of a project.
   a. budget
   b. schedule
   c. planning
   d. verification

3. There are ____ main processes involved in project time management.
   a. two
   b. four
   c. six
   d. ten

4. Activity ____ involves identifying the specific activities that the project team members and stakeholders must perform to produce the project deliverables.
   a. conflict
   b. modification
   c. verification
   d. definition

5. Activity ____ involves identifying and documenting the relationships between project activities.
   a. duration
   b. development
   c. control
   d. sequencing

6. Activity ____ estimating involves estimating the number of work periods that are needed to complete individual activities.
   a. duration
   b. sequencing
   c. development
   d. control

7. Schedule ____ involves analyzing activity sequences, activity duration estimates, and resource requirements to create the project schedule.
   a. sequencing
   b. development
   c. control
   d. duration

8. Schedule ____ involves managing changes to the project schedule.
   a. sequencing
   b. duration
   c. development
   d. control

9. Activity ____ involves reviewing the activities in the detailed WBS, detailed product descriptions, assumptions, and constraints to determine the relationships between activities.
   a. budgeting
   b. definition
   c. sequencing
   d. management

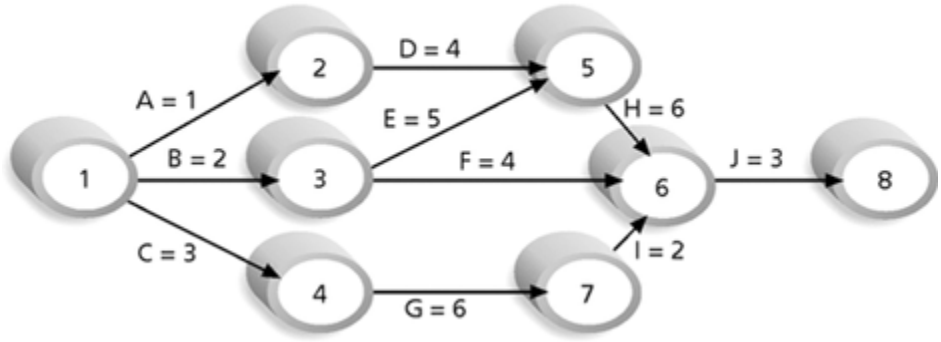
10. There are ____ basic reasons for creating dependencies among project activities.
    a. three
    b. five
    c. eight
    d. nine

11. ____ dependencies are inherent in the nature of the work being done on a project.
    a. Mandatory
    b. Discretionary
    c. External
    d. Relationship

12. ____ dependencies are defined by the project team.
    a. Mandatory
    b. Discretionary
    c. External
    d. Relationship

13. ____ dependencies involve relationships between project and non-project activities.
    a. Mandatory
    b. Discretionary
    c. External
    d. Relationship

14. A project ____ diagram is a schematic display of the logical relationships among, or sequencing of, project activities.
    a. Gantt
    b. bar graph
    c. schedule
    d. network



15. In the figure above, the letters A through J represent activities with ____ that are required to complete the project.
    a. dependencies
    b. schedules
    c. budgets
    d. deliverables

16. A PDM, or ____ diagramming method (PDM) is a network diagramming technique in which boxes represent activities.
    a. precedence
    b. predictive
    c. parallel
    d. primary

17. ____ is a relationship in which the “from” activity cannot start until the “to” activity is started.

a. Finish-to-start
b. Start-to-start
c. Finish-to-finish
d. Start-to-finish

18. ____ is a rarely used relationship in which the “from” activity must start before the “to” activity can be finished.
a. Finish-to-start
b. Start-to-start
c. Finish-to-finish
d. Start-to-finish

19. An example of a ____ relationship is when quality control efforts cannot finish before production finishes, although the two activities can be performed at the same time.
a. Finish-to-start
b. Start-to-start
c. Finish-to-finish
d. Start-to-finish

20. The number of workdays or work hours required to complete a task is called ____.
a. duration
b. length
c. effort
d. time

21. On a Gantt chart, a(n) ____ is a significant event on a project with zero duration.
a. marker
b. goal
c. milestone
d. inning

22. The critical path method (CPM) also called critical path ____ is used to predict total project duration.
a. requirements
b. divisions
c. therapy
d. analysis

23. Slack or ____ is the amount of time an activity may be delayed without delaying a succeeding activity or the project finish date.
a. flotsam
b. float
c. excess
d. padding

24. A(n) ____ pass determines the early start and early finish dates for each activity.
a. forward
b. backward
c. late
d. early

25. ____ is a technique for making cost and schedule trade-offs to obtain the greatest amount of schedule compression for the least incremental cost.
a. Costing
b. Crashing
c. Creating
d. Culling

26. ____ tracking involves doing activities in parallel that you would normally do in sequence.
a. Parallel
b. Simultaneous
c. Slow
d. Fast

27. The Theory of ____ (TOC) is based on the fact that, like a chain with its weakest link, any complex system at any point in time often has only one aspect that limits its ability to achieve more of its goal.
    a. Complaints
    b. Constraints
    c. Constructs
    d. Conventions

28. ____ Law states that work expands to fill the time allowed.
    a. Parkinson's
    b. Gantt's
    c. Murphy's
    d. Stevenson's

29. Lucent Technology's Outside Plant Fiber Optic Cable Business Unit used critical chain scheduling to reduce its product introduction interval by ____ percent.
    a. 20
    b. 30
    c. 40
    d. 50

30. ____ Technologies Group successfully implemented critical chain scheduling to manage more than 200 concurrent projects in nine locations.
    a. Lucent
    b. Antarctic
    c. Synergis
    d. U.S.

31. ADM stands for ____ diagramming method.
    a. advanced
    b. arrow
    c. assertive
    d. anchor

32. ____-on-arrow (AOA) is a network diagramming technique in which activities are represented by arrows and connected at points to illustrate the sequence of activities.
    a. Activity
    b. Arrow
    c. Advances
    d. Articles

33. A(n) ____ pass is a project network diagramming technique that determines the late start and late finish dates for each activity in a similar fashion.
    a. forward
    b. backward
    c. fast
    d. slow

34. A(n) ____ is when a single node is followed by two or more activities on a network diagram.
    a. start
    b. arrow
    c. milestone
    d. burst

35. A(n) ____ occurs when two or more nodes precede a single node on a network diagram.
    a. mesh
    b. milestone
    c. merge
    d. burst

36. The equation for the PERT ____ average is: (optimistic time + 4(most likely time) + pessimistic time)/6.
    a. weighted
    b. probabilistic
    c. slack
    d. constraint

37. A(n) ____ Gantt chart is a Gantt chart that compares planned and actual project schedule information.
    a. information
    b. tracking
    c. singular
    d. inverted

38. One of the first ____ checks a project manager should make is to review the draft schedule usually included in the project charter.
    a. time
    b. reality
    c. progress
    d. account

39. ____-coding involves entering all activity dates manually instead of letting the software calculate them based on durations and relationships.
    a. Cold
    b. Hot
    c. Hard
    d. Slow

COMPLETION

1. The 2001 CHAOS report showed that time overruns _____decreased significantly_____ between 1995 and 2000.

2. Part of the reason schedule problems are so common is that _____time_____ is easily and simply measured.

3. An activity or _____task_____ is an element of work normally found on the WBS that has an expected duration, a cost, and resource requirements.

4. The goal of the activity _____ definition_____ process is to ensure that the project team has complete understanding of all the work they must do as part of the project scope.

5. Activity _____definition_____ results in supporting detail to document important product information as well as assumptions and constraints related to specific activities.

6. The project team should review the revised WBS and supporting detail with project _____stakehoders_____ before moving on to the next step in project time management.

7. A(n) _____ or relationship shows the sequencing of project activities or tasks.

8. Even though the delivery of the new hardware may not be in the _____order_____ of the project, you should add an external dependency to it because late delivery will affect the project schedule.

9. _____Duration_____ includes the actual amount of time worked on an activity plus elapsed time.

10. SMART criteria are guidelines suggesting that milestones should be Specific, Measurable, Assignable, Realistic, and _____Time-framed_____.

11. In a Gantt chart, planned schedule dates for activities are called the _____baseline_____ dates.

12. A(n) _____critical_____ path for a project is the series of activities that determine the earliest time by which the project can be completed.

13. Critical chain theory suggests that projects be _____ prioritized_____ so people working on more than one project at a time know which tasks are most important.

14. A(n) _____ is additional time to complete a task.

15. PERT, or Program Evaluation and _____network analysis_____ Technique, is a network analysis technique used to estimate project duration when there is a high degree of uncertainty about the individual activity duration estimates.

16. PERT uses _____ probabilistic_____ time estimates, duration estimates based on using optimistic, most likely, and pessimistic estimates of activity durations.

17. In an AOA diagram, a(n) _____ activity information_____ represents the starting or ending point of an activity.

18. Although _____duration_____ shortens the time it takes to finish a project, it often increases the project's total costs.

19. The main disadvantage of _____fast_____ tracking is that it can end up lengthening the project schedule since starting some tasks too soon often increases project risk and results in rework.

20. "_____death_____ march" projects are ones that are doomed to failure from the start, due to unrealistic expectations.

ESSAY

1. Describe some of the leadership skills that help project managers control schedule changes.

2. What does project management software do and why is it useful?

3. What are some of the pitfalls of using project management software? Use an example from the text to illustrate your point.

Chapter 7: Project Cost Management

TRUE/FALSE

1. Although information technology projects have a poor track record in meeting schedule goals, they have a great track record in meeting budget goals.
   T

2. Costs are often measured in monetary amounts, such as dollars, that must be paid to acquire goods and services.
   T

3. Many principles of cost management are unique to project management.
   F

4. Most executives are more concerned with profits than with other issues.
   T

5. Top management and project managers should never be concerned with the life cycle costs of projects when they make financial decisions.
   F

6. It is much more cost-effective to spend money doing early testing on information technology projects than to wait for problems to appear after implementation.
   T

7. Labor costs are usually a small percentage of total project costs.

8. It is important to thoroughly brainstorm and evaluate alternatives related to resources, especially on projects that involve people from multiple disciplines and companies.
   T

9. A ROM estimate's accuracy is typically -25 percent to +100 percent.
   F

10. Analogous estimates are also called top-down estimates.
    T

11. Parametric modeling involves estimating individual work items and summing them to get a project total.

12. Earned value management involves calculating three values for each activity or summary activity from a project's WBS.
    T

13. If the cost performance index is equal to one or 100 percent, then the costs are exactly as budgeted.
    T

14. If the schedule performance index is less than one or 100 percent, the project is ahead of schedule.
    F

15. Putting all your projects in one database is the simplest level of project portfolio management.
    T

MODIFIED TRUE/FALSE

1. Many information technology professionals think preparing cost estimates is beneath them and consider it a job for accountants. _____
   T

2. The triple constraint of project management involves balancing social, time, and cost goals.
   scope_____

3. Many projects that are started never finish because of timeline management problems.
   cost_____

4. Most members of an executive board are more interested in financial terms than information technology terms. _____
   T

5. Life cycle costing considers the total cost of ownership plus support costs for a project.
   T_____

6. Cash flow development is a method for determining the estimated annual costs and benefits for a project and the resulting annual cash flow. _____
   analysis

7. Project managers should focus on sunk costs, since they can control them.
   direct_____

8. Indirect costs are allocated to projects, and project managers have very little control over them. _____
T

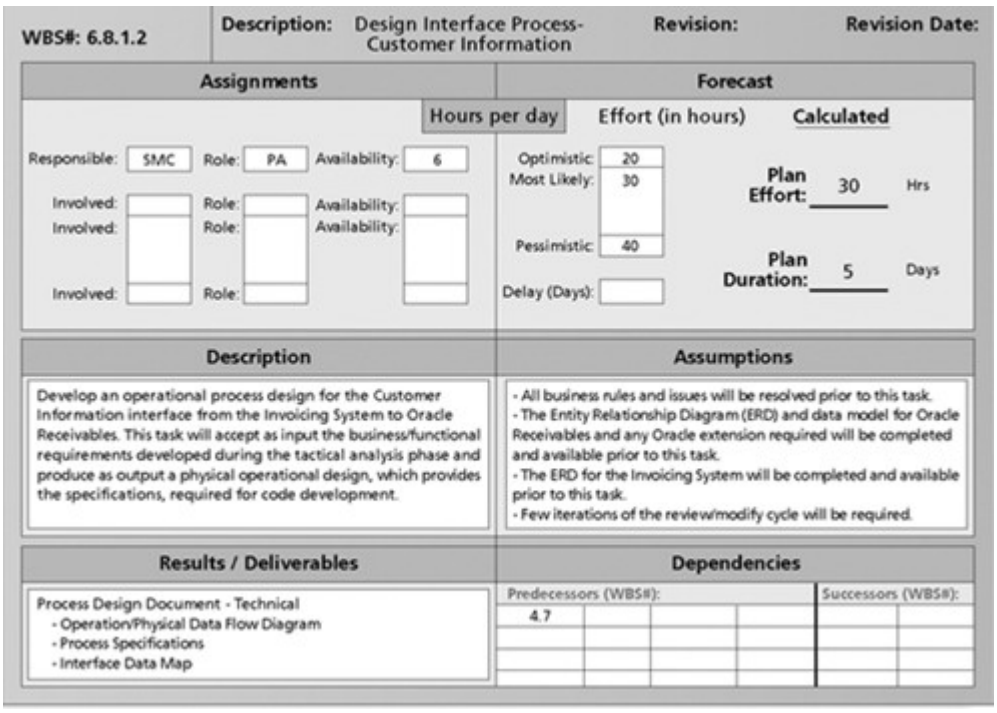
9. Project managers must take cost estimates seriously if they want to complete projects within budget constraints. _____
T

10. A ROM estimate is done very late in a project. _____
early

11. Parametric estimates are most reliable when the previous projects are similar in fact, not just in appearance.
Analogous

12. Using smaller work items increases the accuracy of the bottom-up cost estimate because the people who develop the cost estimate are the ones assigned to do the work. _____
T

13. Legacy systems, or older information systems that run on old mainframe computers, support basic business processes such as general ledger, accounts payable and receivable, and project accounting. _____
T



14. The figure above is an example of a cost control output form for a business systems replacement project. _____

MULTIPLE CHOICE

1. The additional percentage or dollar amount by which actual costs exceed estimates is called the cost ____.
   a. excess
   b. availability
   c. completion
   d. overrun

2. EVM stands for ____ value management.
   a. excess
   b. earned
   c. eventual
   d. economic

3. Project ____ management includes the processes required to ensure that a project team completes a project within an approved budget.
   a. cost
   b. time frame
   c. scope
   d. goal

4. ____ planning involves determining what people, equipment, and materials a project team should use to perform project activities and the quantities of each resource.
   a. Scope
   b. Cost
   c. Resource
   d. Development

5. The output of the resource planning process is a list of resource ____.
   a. goals
   b. requirements
   c. ideas
   d. plans

6. Cost ____ involves developing an approximation of the costs of the resources needed to complete a project.
   a. budgeting
   b. control
   c. estimating
   d. planning

7. The main outputs of the cost estimating process are cost estimates, ____ detail, and a cost management plan.
   a. development
   b. budget
   c. scope
   d. supporting

8. Cost ____ involves allocating the overall cost estimate to individual work items to establish a baseline for measuring performance.
   a. budgeting
   b. analysis
   c. control
   d. estimating

9. The main output of the cost budgeting process is a cost ____.
   a. graph
   b. baseline
   c. analysis
   d. estimate

10. The main outputs of the cost control process are revised cost estimates, budget ____, corrective action, estimate at completion, and lessons learned.
    a. charts
    b. timelines
    c. updates
    d. goals

11. Profit ____ is the ratio between revenues and profits.
    a. margin
    b. life cycle
    c. scope
    d. cost

12. ____ costing allows you to see a big-picture view of the cost of a project and develop an accurate projection of a project's financial benefits.
    a. Project scope
    b. Life cycle
    c. Development
    d. Profit

13. ____ costs or benefits are those costs or benefits that an organization can easily measure in dollars.
    a. Sunk
    b. Direct
    c. Indirect
    d. Tangible

14. ____ costs or benefits are costs or benefits that are difficult to measure in monetary terms.
    a. Indirect
    b. Direct
    c. Intangible
    d. Tangible

15. ____ costs are costs related to a project that an organization can trace back in a cost-effective way.
    a. Direct
    b. Indirect
    c. Sunk
    d. Intangible

16. The cost of electricity, paper towels, and so on in a large building housing a thousand employees are examples of ____ costs.
    a. tangible
    b. intangible
    c. direct
    d. indirect

17. ____ cost is money that has been spent in the past.
    a. Direct
    b. Indirect
    c. Sunk
    d. Intangible

18. Contingency reserves, also sometimes called ____, allow for future situations that may be partially planned for and are included in the project cost baseline.
    a. unknown knowns
    b. known unknowns
    c. unknown unknowns
    d. known knowns

19. Management reserves, sometimes called ____, allow for future situations that are unpredictable.
    a. unknown unknowns
    b. known unknowns
    c. unknown knowns
    d. known knowns

20. A ROM or a rough order of ____ (ROM) estimate provides a rough idea of what a project will cost.
    a. maintenance
    b. money
    c. magnitude
    d. misdemeanors

21. ____ estimates are used for making many purchasing decisions for which accurate estimates are required and for estimating final project costs.
    a. Budgetary
    b. Definitive
    c. Rough
    d. Absolute

22. ____ estimates use the actual cost of a previous, similar project as the basis for estimating the cost of the current project.
    a. Analogous
    b. Bottom-up
    c. Parametric
    d. Constructive Cost

23. One popular parametric model is the ____ Cost Model, which is used for estimating software development costs based on parameters such as the source lines of code or function points.
    a. Creative
    b. Collaborative
    c. Coupled
    d. Constructive

24. EVM or ____ value management is a project performance measurement technique that integrates scope, time, and cost data.
    a. excess
    b. eventual
    c. earned
    d. elapsed

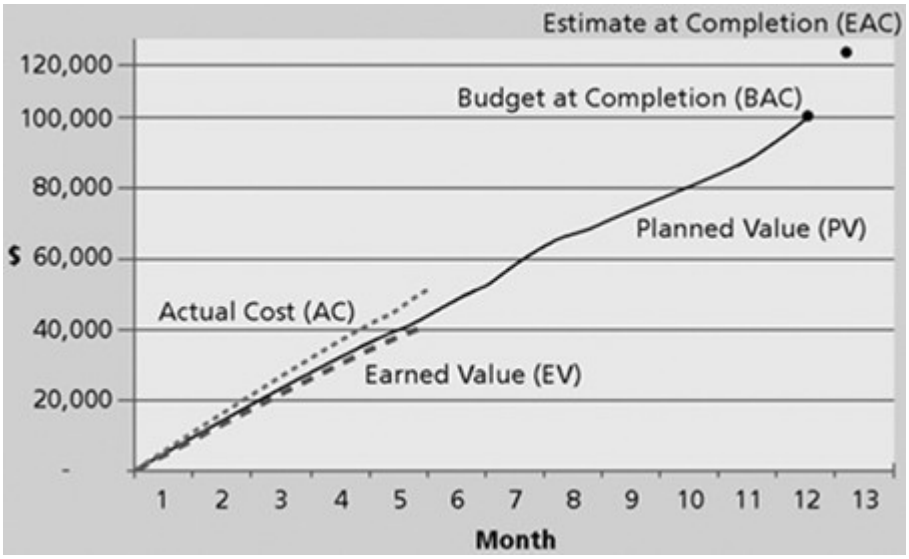
25. A(n) ____ is the original project plan plus approved changes.
    a. description
    b. baseline
    c. forecast
    d. assignment

26. The ____ value (PV), also called the budget, is that portion of the approved total cost estimate planned to be spent on an activity during a given period.
    a. prepared
    b. planned
    c. periodical
    d. participant

27. The ____ is the total direct and indirect costs incurred in accomplishing work on an activity during a given period.
    a. planned value
    b. earned value
    c. actual cost
    d. budgeted cost

28. ____ is the earned value minus the actual cost.
    a. Schedule variance
    b. Cost performance index
    c. Schedule performance index
    d. Cost variance

29. The ____ performance index can be used to calculate the estimate at completion (EAC), an estimate of what it will cost to complete the project based on performance to date.
    a. completion
    b. cost
    c. spreadsheet
    d. project



30. The figure above shows the earned value chart for the project after ____ month(s).
    a. one
    b. five
    c. twelve
    d. thirteen

COMPLETION

1. In 1995, more than 31 percent of information technology projects were canceled before completion, costing U.S. companies and government agencies over $81 billion_____.

2. _____Net income_____ are revenues minus expenses.

3. To increase profits, a company can increase revenues, _____ expenses, or try to do both.

4. When justifying investments in new information systems and technology, it is important to focus on the impact on ___profits_____, not just revenues or expenses.

5. IRR stands for the internal rate of return.

6. Another name for the IRR is the _____ rate of return.

7. Learning curve theory states that when many items are produced repetitively, the unit cost of those items decreases in a regular pattern as more units are produced.

8. Reserves are dollars included in a cost estimate to mitigate cost risk by allowing for future situations that are difficult to predict.

9. ROM estimates can also be referred to as a ball-park estimate, a guesstimate, a swag, or a(n) _____broad____ gauge.

10. A budgetary ____estimate_____ is used to allocate money into an organization's budget.

11. In the cost estimating process, the supporting details include the ground rules and assumptions used in creating an estimate, a description of the project used as a basis for the estimate, and details on the cost estimation tools and techniques used to create the estimate.

12. Function points are technology-independent assessments of the functions involved in developing a system.

13. A cost baseline is a time-phased budget that project managers use to measure and monitor cost performance.

14. The EAC, or estimate at completion, is an estimate of what it will cost to finish the project based on performance to date.

ESSAY

1. Explain what is meant by the term "learning curve theory." Give an example to accompany your explanation.

2. Describe parametric modeling. Give an example to illustrate the concept.

3. Why is it that many organizations do not use earned value management on many projects?

Chapter 8: Project Quality Management

TRUE/FALSE

1. Most information technology products can reach 100 percent reliability.
   F

2. One of the goals of quality assurance is continual quality improvement.
   T

3. Quality audits should always be random, never scheduled.

4. If project stakeholders reject some of the products or services produced as part of the project, there must be rework.
   T

5. Members of a project team who focus on quality control only need to understand the basic concepts of statistics; the other team members, however, must have a very strong understanding of the subject.
   F

6. In statistical sampling, the size of the sample depends on how representative you want the sample to be.
   T

7. Six Sigma's target for perfection is the achievement of no more than 30 defects, errors, or mistakes per million opportunities.
   F

8. One advantage of adopting Six Sigma principles for an organization is that there are no training investments necessary.

9. Motorola estimates their cumulative savings based on Six Sigma efforts to be about $14 billion.
   T

10. A recent article in *Fortune* states that companies that have implemented Six Sigma have all boosted their stock values.
    F

11. Standard deviation is a key factor in determining the acceptable number of defective units found in a population.
    T

12. When a process is in control, variations in the results of the process are caused by nonrandom events.
    F

13. Testing should be done during almost every phase of the system's development life cycle, not only just before the organization ships or hands over a product to the customer.

14. Deming wrote the first edition of the *Quality Control Handbook* in 1974, stressing the importance of top management commitment to continuous product quality improvement.

T

15. ISO 9000 is a three-part, continuous cycle of planning, controlling, and documenting quality in an organization.
T

16. A Brazilian newspaper reported that following ISO 9000 helped their home delivery service improve so much that the complaints dropped to a mere 6 percent of the total copies distributed.
F

17. The Year 2000 (Y2K) issue provides a good example of appraisal costs.
F

18. Top management is primarily responsible for the high cost of nonconformance in information technology.
T

19. DeMarco and Lister's "Coding War Games" study found no correlation between productivity and programming language, years of experience, or salary.
T

20. At the adaptive level of the model developed by Micro-Frame Technologies, management collects and uses detailed measures of the effectiveness of project management.

MODIFIED TRUE/FALSE

1. The purpose of project fitness management is to ensure that the project will satisfy the needs for which it was undertaken. _____
quality

2. Project quality management involves three main processes.
T
3. Design of experiences is a quality planning technique that helps identify which variables have the most influence on the overall outcome of a process. _____

4. System outputs are the screens and reports the system generates. _____
T

5. Rework decisions determine if the products or services produced as part of the project will be accepted or rejected. _____
Acceptance

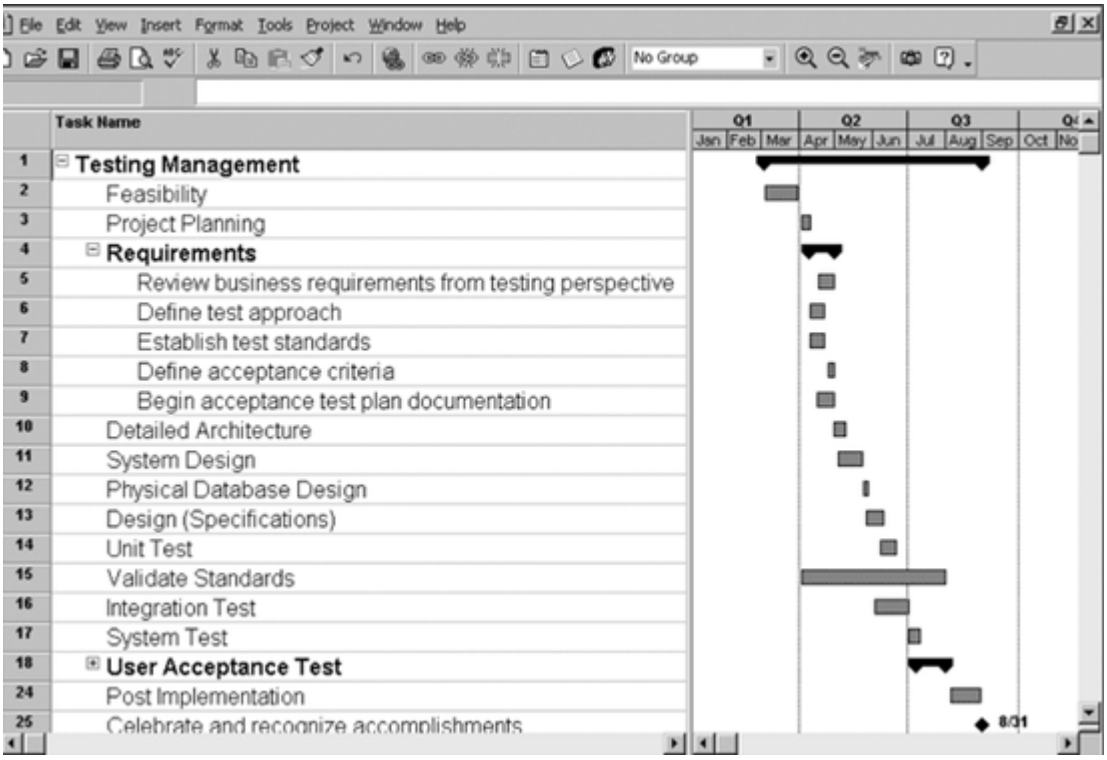
6. Statistical sampling involves choosing part of a population of interest for inspection.
_____
T

7. Projects that use Six Sigma principles for quality control normally follow a(n) twelve-phase improvement process. _____

five

8. According to Pande, Neuman, and Cavanagh, the most critical and most commonly mishandled activity in launching Six Sigma was staff selection. _____
project

9. In Six Sigma measures, yield represents the number of units handled correctly through the process steps.
_____
T



10. The figure above represents a(n) flow chart that shows testing tasks that are appropriate for different phases of the systems development life cycle. _____

11. Most Six Sigma principles are based on the plan-do-check-act model created by Deming.
_____
T

12. Crosby developed the concept of quality circles and pioneered the use of Fishbone diagrams.
Ishikawa_____

13. In TQC, or Total Quality Control, product quality is more important than production rates, and workers are allowed to stop production whenever a quality problem occurs.
T

14. Crosby developed the concept of TQC. _____

15. The International Organization for Supervision (ISO) is a network of national institutes from 145 countries that work in partnership with international organizations, governments, industries, businesses, and consumer representatives. _____
Standardization

16. ISO 9000 provides minimum requirements needed for an organization to meet its quality certification standards.
T

17. A large percentage of quality problems are associated with financial, not technical issues. _____
management

18. DeMarco found that the average large company devoted more than 60 percent of its software development efforts to maintenance. _____
T

19. In the adaptive level of the maturity model developed by Micro-Frame Technologies, project success is largely unpredictable and cost and schedule problems are common. _____

20. Acceptance decisions are decisions that determine if the products or services produced as part of the project will be accepted or rejected. _____
T

MULTIPLE CHOICE

1. Currently, about ____ percent of U.S. homes have computers.
   a. 25
   b. 50
   c. 75
   d. 95

2. It took only ____ years for fifty million people to use the Internet compared to twenty-five years for fifty million people to use telephones.
   a. two
   b. five
   c. fifteen
   d. twenty

3. ____ is defined as the totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs.
   a. Fitness
   b. Conformance
   c. Performance
   d. Quality

4. ____ for use means a product can be used as it was intended.
   a. Fitness
   b. Conformance
   c. Performance
   d. Quality

5. Quality ____ includes identifying which quality standards are relevant to the project and how to satisfy those standards.
   a. assurance
   b. control
   c. planning
   d. development

6. Quality ____ involves periodically evaluating overall project performance to ensure the project will satisfy the relevant quality standards.
   a. assurance
   b. control
   c. planning
   d. development

7. Quality ____ involves monitoring specific project results to ensure that they comply with the relevant quality standards while identifying ways to improve overall quality.
   a. assurance
   b. control
   c. planning
   d. development

8. ____ is the ability of a product or service to perform as expected under normal conditions without unacceptable failures.
   a. Performance
   b. Maintainability
   c. Hardness
   d. Reliability

9. ____ generates ideas for quality improvements by comparing specific project practices or product characteristics to those of other projects or products within or outside the performing organization.
   a. Development
   b. Scope assessment
   c. Benchmarking
   d. Planning

10. ____ is action taken to bring rejected items into compliance with product requirements or specifications or other stakeholder expectations.
    a. Rework
    b. Acceptance
    c. Adjustment
    d. Rejection

11. VOC stands for ____ of the Customer data.
    a. Volume
    b. Voice
    c. Value
    d. Variety

12. Six Sigma principles for quality follow an improvement process called DMAIC, which stands for Define, Measure, Analyze, ____, and Control.
    a. Integrate
    b. Invest
    c. Illuminate
    d. Improve

13. Standard ____ measures how much variation exists in a distribution of data.
    a. derivation
    b. distribution
    c. deviation
    d. difference

14. A ____ distribution is a bell-shaped curve that is symmetrical regarding the average value of the population.
a. normal
b. regular
c. negative
d. deviation

15. Six 9s of quality is a measure of quality control equal to 1 fault in ____ million opportunities.
a. 1
b. 5
c. 6
d. 9

16. A ____ chart is a graphic display of data that illustrates the results of a process over time.
a. calendar
b. control
c. time
d. procedural

17. The seven ____ rule states that if seven data points in a row are all below the mean, above the mean, or are all increasing or decreasing, then the process needs to be examined for nonrandom problems.
a. qualities
b. point
c. straight
d. run

18. A(n) ____ test is done to test each individual component (often a program) to ensure it is as defect-free as possible.
a. user
b. integration
c. unit
d. system

19. ____ testing ensures subsets of the entire system work together.
a. User
b. Integration
c. Unit
d. System

20. ____ testing focuses on the big picture to ensure the entire system is working properly.
a. User
b. Integration
c. Unit
d. System

21. ____ acceptance testing is an independent test performed by end users prior to accepting the delivered system.
a. User
b. Integration
c. Unit
d. System

22. The ____ Trilogy consists of quality improvement, quality planning, and quality control.
a. Deming
b. Juran
c. Crosby
d. Gantt

23. ____ stressed that the costs of poor quality should include all the costs of not doing the job right the first time, such as scrap, rework, lost labor hours and machine hours, customer ill will and lost sales, and warranty costs.
a. Deming
c. Crosby

b. Juran
d. Gantt

24. Quality ____ are groups of nonsupervisors and work leaders in a single company department who volunteer to conduct group studies on how to improve the effectiveness of work in their department.
a. diagrams
b. controls
c. assurances
d. circles

25. _____ diagrams trace complaints about quality problems back to the responsible production operations.
a. Fishbone
b. Gantt
c. Quality
d. Crop

26. Key concepts in the ____ methods are that quality should be designed into the product and not inspected into it and that quality is best achieved by minimizing deviation from the target value.
a. Crosby
b. Taguchi
c. Deming
d. Ishikawa

27. ____ Design methods focus on eliminating defects by substituting scientific inquiry for trial-and-error methods.
a. Cost
b. Fishbone
c. Robust
d. Quality

28. Juran and many other quality experts argue that the main cause of quality problems is a lack of ____.
a. investments
b. time
c. attention
d. leadership

29. The cost of ____ is the cost of conformance plus the cost of nonconformance.
a. quality
b. competition
c. leadership
d. success

30. ____ means delivering products that meet requirements and fitness for use.
a. Performance
b. Conformance
c. Superiority
d. Availability

31. A cost incurred to correct an identified defect before the customer receives the product is called a(n) ____ cost.
a. prevention
b. appraisal
c. internal failure
d. external failure

32. Items such as scrap and rework, charges related to late payment of bills, inventory costs that are a direct result of defects, costs of engineering changes related to correcting a design error, premature failure of products, and correcting documentation all contribute to ____ cost.
a. prevention
b. appraisal
c. internal failure
d. external failure

33. A cost that relates to all errors not detected and not corrected before delivery to the customer is called a(n) ____ cost.
    a. measurement
    b. appraisal
    c. internal failure
    d. external failure

34. ____ models are frameworks for helping organizations improve their processes and systems.
    a. Maturity
    b. Management
    c. Aging
    d. Development

35. Organizations at the ____ maturity level have established basic project management processes to track cost, schedule, and functionality for software projects.
    a. initial
    b. repeatable
    c. defined
    d. managed

36. At the ____ maturity level, the software processes for both management and software engineering activities are documented, standardized, and integrated into a standard software process for the organization.
    a. repeatable
    b. managed
    c. optimizing
    d. defined

37. At the ____ maturity level, organizations can enable continuous process improvement by using quantitative feedback from the processes and from piloting innovative ideas and technologies.
    a. optimizing
    b. repeatable
    c. initial
    d. defined

38. DeMarco found that the average large company devoted more than 60 percent of its software development efforts to ____.
    a. coding
    b. debugging
    c. maintenance
    d. design

COMPLETION

1. Functionality is the degree to which a system performs its intended function.

2. Features are the system's special characteristics that appeal to users.

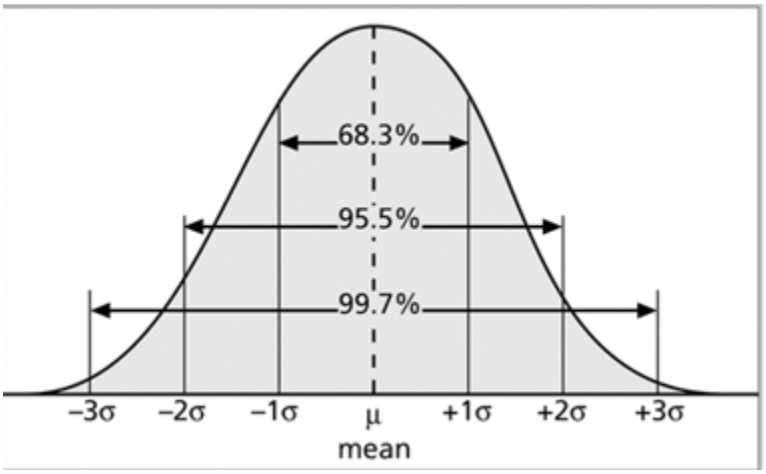
3. A quality audit is a structured review of specific quality management activities that help identify lessons learned that could improve performance on current or future projects.

4. Process adjustments correct or prevent further quality problems based on quality control measurements.

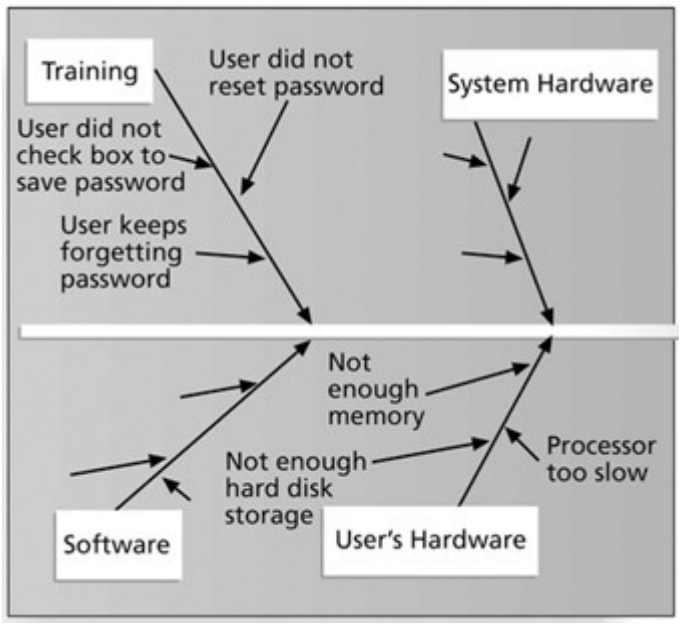
5. Pareto diagrams are histograms, or column charts representing a frequency distribution that help identify and prioritize problem areas.

6. In statistical sampling, the certainty factor denotes how certain you want to be that the data sampled will not include variations that do not naturally exist in the population.

7. Examples of VOC data include complaints, surveys, comments, and market research that represent the views and needs of the organization's customers.



8. The figure above illustrates the _____normal_____ curve.



9. The figure above is an example of a(n) cause-and-effect diagram.

10. The _____ Award is given by the President of the United States to recognize companies that have achieved a level of world-class competition through quality management.

11. The cost of nonconformance means taking responsibility for failures or not meeting quality expectations.

12. Prevention cost is the cost of planning and executing a project so that it is error-free or within an acceptable error range.

13. Appraisal cost is the cost of evaluating processes and their outputs to ensure that a project is error-free or within an acceptable error range.

14. The Software Quality Function Deployment (SQFD) model focuses on defining user requirements and planning software projects.

15. The Capability Maturity Model (CMM) is a five-level model laying out a generic path to process improvement for software development in organizations.

16. At the _____ level of the model developed by Micro-Frame Technologies, the project management process is described as disorganized and occasionally even chaotic.

17. At the _____ level of the model developed by Micro-Frame Technologies, there are standardized, documented project management processes and systems that are integrated into the rest of the organization.

18. A(n) maturity model is a framework for helping organizations improve their processes and systems.

ESSAY

1. What types of projects make good Six Sigma projects?

2. Describe the work and preliminary findings of William Ibbs and Young H. Kwak.

3. How can software applications be used in project quality management?

Chapter 9: Project Human Resource Management

TRUE/FALSE

1. In the 1990s, there was a growing surplus of personnel in information technology. F

2. Global e-commerce has grown in the new millennium but not as much as the global high-tech industry.

3. More and more, organizations are changing their benefits policies to meet worker needs. T

4. David McClelland proposed that an individual's specific needs are learned over time. T

5. New project managers often overemphasize their position. T

6. Without rapport, people cannot start communicating. T

7. Smaller IT projects usually have subproject managers. F

8. An OBS brings together the information in a RAM and the information in a WBS.

9. Schedules tend to focus primarily on time rather than on both time and resources. T

10. Resources are used best when they are leveled. T

11. When resources are used on a less constant basis, they require less management. T

12. Automatic leveling often extends the project's completion date. T

13. It is often more economical to hire new people who already possess certain skills than it is to train current employees in those areas. F

14. In today's complex IT environments, it is usually easier to replace a person than a piece of equipment.

15. According to Maslow, once a need is satisfied, it no longer serves as a motivator. T

16. Leveled resources require more management. F

17. Teamwork helps people work more effectively to achieve project goals. T

18. Internet and e-commerce is still climbing in the global economy, despite lower spending in most of the developed world.

19. The United States' overall percentage of global spending is rising.

MODIFIED TRUE/FALSE

1. The global high-tech industry generated around $2.1 billion in 1999. _F- trillion_____

2. The number of women entering the information technology field peaked in 1994 and has been steadily declining ever since. _____

3. The project human resource management process, team acquisition, involves building individual and group skills to enhance project performance. ____F - development_____

4. Intrinsic motivation causes people to participate in an activity for a reward or to avoid a penalty. __F- Extrinsic_

5. The highest level of Maslow's hierarchy is considered a(n) growth need, or a self-actualization need. _____ T

6. According to Herzberg, factors such as achievement and advancement are work motivators. _____ T

7. McGregor's Theory Y is sometimes referred to as classical systems theory. __F- X_____

8. Reward power involves using incentives to induce people to do things. _____T

9. Covey's first three habits help people achieve interdependence. _____T

10. Rapport is a relation of harmony, conformity, accord, or affinity. _____ T

11. Deputy project managers assist project managers as needed and fill in for them in case of absence. _____ T

12. Resource loading is a technique for resolving resource conflicts by delaying tasks. __F - leveling____

13. A(n) extrovert draws energy from inside herself. ___F - introvert_____

14. According to the Wilson Learning Styles Profile, "drivers" are reactive and people-oriented. ___F- "amiables" _

15. According to the Wilson Learning Styles Profile, "analyticals" are reactive and task-oriented. _____ T

16. Power is the potential ability to influence behavior to get people to do things they would not otherwise do. _____ T

17. Computers are the most important assets in organizations and on projects. ____F - People_____

18. Theory Z says that workers can be trusted to do their jobs to the fullest, as long as management can be trusted to look out for their well-being. _____ T

19. There are five main types of power. _____

20. In McClelland's schema, people with a high need for affiliation desire peaceful relationships with other people and need to feel accepted by others. _____ T

MULTIPLE CHOICE

1. According to a December 2002 report, hiring by non-IT companies outpaces hiring by IT companies by a ratio of ____ to one.
   a. three
   b. six
   c. nine
   d. twelve

2. ICT spending stands for information and ____ technology spending.
   a. computer
   c. collapsible

b. communication
d. contact

3. Just under ____ percent of the graduates earning Bachelor's degrees in computer related fields are female.
   a. 20
   b. 40
   c. 60
   d. 80

4. According to the ACM-W co-chair, girls and women are not turned off by technology, but by how it is used in ____.
   a. movies
   b. networking
   c. society
   d. business

5. Project human resource management involves ____ primary processes.
   a. two
   b. three
   c. four
   d. five

6. According to Maslow, the most basic human need is ____.
   a. safety
   b. social
   c. physiological
   d. self-actualization

7. Maslow's hierarchy of needs is organized as a(n) ____.
   a. pyramid
   b. chain-of-command
   c. circle
   d. inverted pyramid

8. According to Maslow, you can begin meeting your esteem needs as soon as you have finished meeting your ____ needs.
   a. safety
   b. self-actualization
   c. physiological
   d. social

9. Herzberg referred to factors that cause job satisfaction as ____.
   a. hygiene
   b. motivators
   c. self-actualizers
   d. starters

10. The ____ Apperception Test (TAT) is a tool that measures individual needs using McClelland's categories.
    a. Theoretical
    b. Technological
    c. Thematic
    d. Testing

11. The main categories of needs, according to McClelland, are achievement, ____, and power.
    a. accolade
    b. hygiene
    c. safety
    d. affiliation

12. McGregor's Theory Y is sometimes referred to as ____ relations theory.
    a. human
    c. motivator

b. classical
d. need

13. Theory Z is based on the ____ approach to motivating workers.
a. Scandinavian
c. American
b. Chinese
d. Japanese

14. Thamhain and Wilemon identified ____ influence bases available to project managers.
a. three
c. nine
b. six
d. twelve

15. Thamhain and Wilemon found that when project managers used work challenge and ____ to influence people, their projects were more likely to succeed.
a. penalty
c. authority
b. expertise
d. money

16. ____ power is based on an individual's personal charisma.
a. Referent
c. Expert
b. Legitimate
d. Reward

17. Covey's final habit is ____.
a. be proactive
c. think win/win
b. sharpen the saw
d. synergize

18. ____ listening is listening with the intent to understand.
a. Synergistic
c. Empathic
b. Endemic
d. Sympathetic

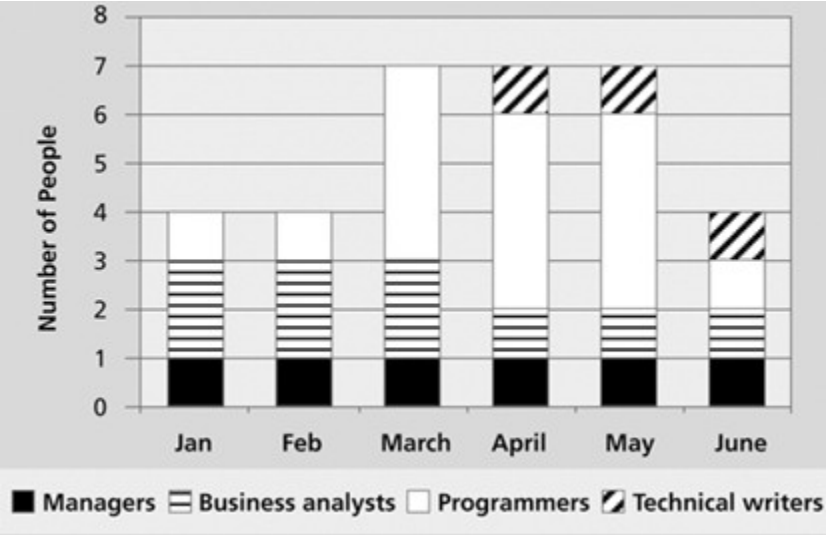
19. If a process is ____, it often takes more than one pass to refine it.
a. synergistic
c. iterative
b. hierarchical
d. organic

20. A responsibility ____ matrix (RAM) maps the work of the project to the people responsible.
a. aptitude
c. association
b. affiliation
d. assignment

	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8
Systems Engineering	R	R P					R	
Software Development			R P					
Hardware Development				R P				
Test Engineering	P							
Quality Assurance					R P			
Configuration Management						R P		
Integrated Logistics Support							P	
Training								R P

21. The figure above is an example of a(n) ____.
    a. RAM
    b. WBS
    c. OBS
    d. OC

22. RACI charts show Responsibility, ____, Consultation, and Informed roles for project stakeholders.
    a. Affiliation
    b. Accountability
    c. Authority
    d. Accessibility



23. The figure above is an example of a(n) ____.
    a. RACI chart
    b. RAM
    c. OBS
    d. resource histogram

24. The main outputs of the ____ process are project staff assignments and a project team directory.
    a. staff acquisition
    b. team development
    c. human resource management
    d. organizational planning

25. An important part of staffing plans is maintaining a thorough and accurate inventory of employees' ____.
    a. hardware
    b. skills
    c. software
    d. education

26. ____ means more resources than are available are assigned to perform work at a given time.
    a. Mirroring
    b. Resource loading
    c. Overallocation
    d. Synergy

27. The main purpose of resource leveling is to create a ____ distribution of resource usage.
    a. smoother
    b. larger
    c. slack
    d. crisis

28. When resource leveling using histograms, you should be employing the strategy from the computer game, ____.
    a. Quake
    b. Space Invaders
    c. Pong
    d. Tetris

29. Training should be provided in a ____ fashion.
    a. fastidious
    b. just-in-time
    c. more-is-more
    d. traditional

30. The Myers-Briggs Type Indicator was first developed based on ____'s theory of psychological type.
    a. Piaget
    b. Maslow
    c. Jung
    d. Freud

31. In the MBTI, the other side of the Feeling dimension is ____.
    a. Thinking
    b. Intuition
    c. Sensation
    d. Perception

32. The 1985 MBTI study found that ____ percent of information systems developers were introverts.
    a. 25
    b. 50
    c. 75
    d. 100

33. The most productive teams should be limited to ____ people.
    a. 1 to 3
    b. 3 to 7
    c. 7 to 10
    d. 10 to 14

34. The second stage of the basic team-building stages is ____.
    a. forming
    b. performing
    c. norming
    d. storming

35. The third stage of the basic team-building stages is ____.
    a. forming
    b. performing
    c. norming
    d. storming

36. The resource ____ view of Project 2002 shows such information as the names of the people working on a project and the total number of hours they are scheduled to work.
    a. usage
    b. development
    c. matrix
    d. project

37. If someone is overallocated, Project 2002 automatically puts a(n) ____ in the column to the left of their name.
    a. star
    b. exclamation point
    c. plus sign
    d. minus sign

	Mar 16	Mar 23	Mar 30	Apr 6	Apr 13
Joe Franklin	120 hrs	120 hrs	120 hrs	120 hrs	120 hrs
Packaging	40 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Datasheets	40 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Reseller kits	40 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Rich Anderson	16 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Working Model	16 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Mark Smith					
Develop creative briefs					
Develop concepts					
Lisa Adams					
Launch planning					
Intern	34 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Working model	34 hrs	40 hrs	40 hrs	40 hrs	40 hrs
Total	170 hrs	200 hrs	200 hrs	200 hrs	200 hrs

38. The figure above shows a(n) ____ report.
    a. organizational chart
    b. RACI
    c. workflow breakdown
    d. resource usage

39. ____ factors will cause dissatisfaction if not present, but do not motivate workers to do more if present.
    a. Synergy
    b. Hygiene
    c. Self-actualizing
    d. RACI

COMPLETION

1. ___Human resource_____ planning involves identifying, assigning, and documenting project roles, responsibilities, and reporting relationships.

2. The project human resource management process staff ___acquisition_____ involves getting the needed personnel assigned to and working on the project.

3. _____Intrinsic_____ motivation causes people to do something for their own enjoyment.

4. The bottom four needs in Maslow's hierarchy are referred to as _____deficiency_____needs.

5. Herzberg labeled factors that cause job dissatisfaction _____hygiene_____ factors.

6. ___Coercive_____ power is getting people to do things based on a position of authority.

7. _____ is the concept that the whole is equal to more than the sum of its parts.

8. _____ is the process of matching certain behaviors of the other person in a conversation.

9. RFP stands for Request for _____proposal_____.

10. An organizational ___breakdown_____ structure (OBS) is a kind of organizational chart showing which organizational units are responsible for which work items.

11. A(n) ____staffing_____ management plan describes when and how people will be added to and removed from the project team.

12. A resource _____ shows the number of resources assigned to a project over time.

13. Resource ____loading_____ refers to the amount of individual resources required by an existing schedule over specific time periods.

14. According to MBTI, _____ISTJ_____ type people take deadlines seriously.

15. According to the Wilson Learning Styles Profile, “drivers” are proactive and _____task_____-oriented.

16. The Wilson Learning Social Styles Profiles are based on the traits of assertiveness and _____.

17. Thamhain and Wilemon found project failure to be associated with using too much influence by authority, money, or ____penalty_____.

ESSAY

1. Describe people with a high need for achievement, according to McClelland.

2. Describe coercive power. Give an example.

3. Describe Covey’s habit of putting first things first.

Chapter 10: Project Communications Management

TRUE/FALSE

1. Because more and more people use computers, the gap between users and developers decreases as technology advances. F

2. Many studies have shown that information technology professionals need soft skills such as speaking, writing, and listening just as much or even more than technical skills. T

3. The problem with using existing communication channels is that project managers, top management, and project team members, as well as other stakeholders, all have different communication needs. T

4. Technical professionals tend to rely on informal communication techniques like verbal communication. F

5. Generally speaking, different people respond positively to different levels or types of communication. T

6. Electronic communications are almost always more effective than face-to-face meetings, particularly for sensitive information. T

7. Adding more people to a project that is behind schedule often causes more set-backs. T

8. Formal acceptance should only be provided on internal projects. T

9. The withdrawal approach is the least desirable conflict-handling mode. T

10. Research indicates that project managers favor using *compromise* for conflict resolution over the other four modes. F Confrontation

11. Emotional conflict, which stems from personality clashes and misunderstandings, often depresses team performance. T

12. Individual employees are less likely to voluntarily enroll in classes on the latest technology than in classes that develop their soft skills. F

13. Usually, meetings are most effective with the minimum number of participants possible, especially if decisions must be made. T

14. Progress reports focus on accomplishments during a specific time period while status reports focus on where the project stands at a certain point in time. T

15. A project charter is less formal than a letter of agreement. T

16. In the early 1980s--before most people ever used personal computers--the U.S. Air Force had already developed standard forms for reporting project progress information, outlines for developing project final reports, and forms and procedures for creating project Gantt charts. T

17. It is not good practice to share the responsibility for project communications management with the entire project team because this creates even more problems. F

18. Creating handouts and visual aids does not usually help a meeting run more effectively because it slows the process down. F

19. According to the *Journal of Information Systems Education*, IS professionals engage in numerous verbal communication activities that are informal in nature, brief in duration, and with a small number of people at a time. F

20. A sensing person would want to understand how something fits into the big picture, while an intuitive person would prefer to have more focused, step-by-step details. F

MODIFIED TRUE/FALSE

1. A communications maintenance plan is a document that guides project communications. _____F - management___

2. A stakeholder communications analysis describes what kinds of information will be distributed to which stakeholders. _____

3. Information regarding the content of essential project communications comes from the work bulletin structure (WBS). __F - breakdown_____

4. Many experts believe that the difference between good project managers and excellent project managers is their ability to nurture relationships and use empathic motivational skills. ___F - listening_____

5. In his popular book, *The Mythical Man-month*, Brooks illustrates the concept that people are not interchangeable parts. _____ T

6. Project archives include a complete set of organized project records that provide an accurate history of the project. _____ T

7. Formal closure is documentation that the project's sponsor or customer signs to show they have accepted the products of the project. _____F - acceptance_____

8. Blake and Mouton delineated five basic modes for handling conflicts. _____F

9. Compromise mode is sometimes called the problem-solving mode. __F - Confrontation_____

10. The forcing mode can be viewed as the win-lose approach to conflict resolution. _____ T

11. When using the compromise mode, the project manager deemphasizes or avoids areas of differences and emphasizes areas of agreement. ___F - smoothing_____

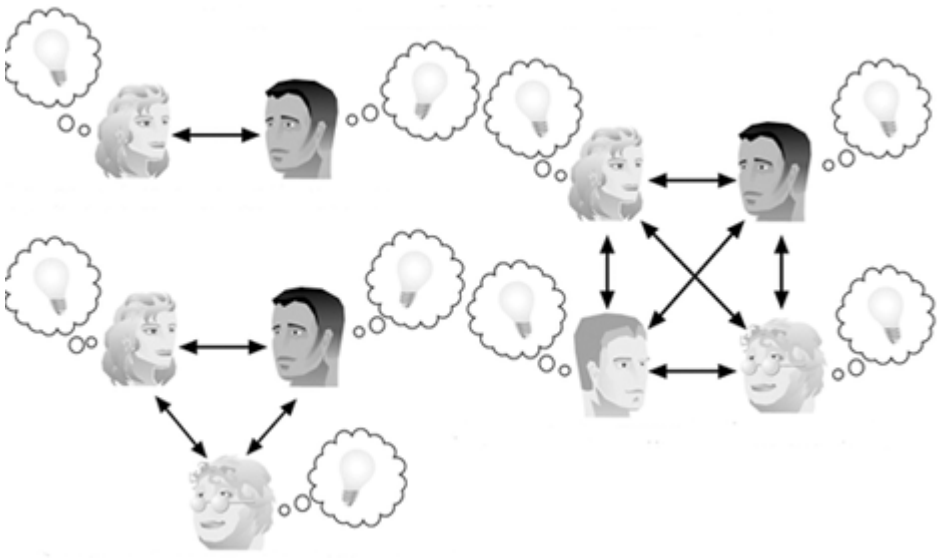
12. Core competencies for developing collaboration skills include conflict resolution, negotiation, and mediation. _____ T

13. To make preparing project communications easier, project managers need to provide examples and templates for common project communications items. _____ T

14. Class projects should use a letter of acceptance instead of a contract or official project charter. _____

15. Communication tools include e-mail, project management software, groupware, fax machines, telephones, teleconferencing systems, document management systems, and word processing software. _____ T

16. Communication strategies include reporting guidelines and templates, meeting ground rules and procedures, decision-making processes, problem-solving approaches, conflict resolution and negotiation. _____F- techniques_____



17. Based on the figure above, with 4 people, there are 16 channels of communication. _____F- 20_____

18. One of the main parts of a communications management plan is a(n) distribution structure describing what information goes to whom, when, and how. _____T

MULTIPLE CHOICE

1. Many experts agree that the greatest threat to the success of any project, especially information technology projects, is a failure to ____.
   a. work
   b. profit
   c. organize
   d. communicate

2. ____ involves determining the information and communications needs of the stakeholders.
   a. Performance reporting
   b. Information distribution
   c. Communications planning
   d. Administrative closure

3. ____ involves making needed information available to project stakeholders in a timely manner.
   a. Performance reporting
   b. Information distribution
   c. Communications planning
   d. Administrative closure

4. ____ involves collecting and disseminating performance information, including status reports, progress measurement, and forecasting.
   a. Performance reporting
   b. Information distribution
   c. Communications planning
   d. Administrative closure

5. ____ involves generating, gathering, and disseminating information to formalize phase or project completion.

a. Communications planning
b. Information distribution
c. Performance reporting
d. Administrative closure

6. Communicating includes many different dimensions such as ____, speaking, and listening.
a. programming
b. writing
c. hiring
d. meeting

7. A well-publicized example of misuse of ____ comes from the 1998 Justice Departments high-profile, antitrust suit against Microsoft.
a. meetings
b. software
c. e-mail
d. project management

8. Studies show that less than ____ percent of communications consist of the actual content or words communicated.
a. 2
b. 5
c. 8
d. 10

9. ____ meetings have no chairs, and the lack of chairs forces people to focus on what they really need to communicate.
a. Stand-up
b. Concerns
c. Oral communication
d. Consultation

10. If you were trying to assess commitment of project stakeholders, a(n) ____ would be the most appropriate medium to use.
a. telephone call
b. e-mail
c. meeting
d. memo

11. A(n) ____ is an excellent way to give complex instructions.
a. hard copy
b. meeting
c. telephone call
d. e-mail

12. A(n) ____ is a excellent medium for encouraging creative thinking.
a. e-mail
b. voice mail
c. hard copy
d. web-site

13. A voice mail is a(n) ____ way to build consensus.
a. excellent
b. adequate
c. inappropriate
d. reasonable

14. The equation for calculating the number of communication channels is ____.
a. (n-1)/2
b. (n-1)(n-2)
c. 2n-1
d. n(n-1)/2

15. Many information technology professionals work on ____ projects where they never meet their project sponsors, other team members, or other project stakeholders.
    a. scattered
    b. virtual
    c. collaborative
    d. moving

16. ____ address where the project stands in terms of meeting scope, time, and cost goals.
    a. Progress reports
    b. Forecasts
    c. Change requests
    d. Status reports

17. ____ describe what the project team has accomplished during a certain period.
    a. Progress reports
    b. Forecasts
    c. Change requests
    d. Status reports

18. ____ predict future project status and progress based on past information and trends.
    a. Progress reports
    b. Forecasts
    c. Change requests
    d. Status reports

19. ____ allow(s) time to collect project records, ensure those records reflect final specifications, analyze project effectiveness, and archive information for future use.
    a. Status review meetings
    b. Project integration
    c. Administrative closure
    d. Face-to-face discussions

20. ____ reflective statements written by project managers and their team members.
    a. Project archives are
    b. Formal acceptance is
    c. A status review is
    d. Lessons learned are

21. When using the ____ mode, project managers directly face a conflict using a problem-solving approach that allows affected parties to work through their disagreements.
    a. confrontation
    b. compromise
    c. forcing
    d. smoothing

22. With the ____ mode, project managers bargain and search for solutions that bring some degree of satisfaction to all the parties in a dispute.
    a. confrontation
    b. compromise
    c. forcing
    d. withdrawal

23. Managers who are very competitive or autocratic in their management style might favor the ____ mode.
    a. confrontation
    b. withdrawal
    c. forcing
    d. smoothing

24. When using the ____ mode, project managers retreat from an actual or potential disagreement.
    a. confrontation
    b. compromise
    c. forcing
    d. withdrawal

25. A meeting held at the beginning of a project or project phase where all major project stakeholders discuss project objectives is called a(n) ____ meeting.
    a. starter
    b. kickoff
    c. introductory
    d. formative

26. A project description should include the project objective, scope, assumptions, cost information, and ____ information.
    a. schedule
    b. funding
    c. management
    d. staffing

27. A letter of ____ provides similar information as a contract or project charter in a friendlier way.
    a. atonement
    b. analysis
    c. agreement
    d. administration

28. For a long report, it is also a good idea to include a one-page ____ summary that highlights the most important information in the report.
    a. analytical
    b. administrative
    c. descriptive
    d. executive

29. ____ highlight significant events, such as having the letter of agreement signed, or the completion of major deliverables.
    a. Markers
    b. Milestones
    c. Reports
    d. Audits

30. In the past few years, more and more project teams have started putting all or part of their project information, including various templates, on project ____.
    a. e-mails
    b. reports
    c. videos
    d. Web sites

31. A communications ____ is a set of tools, techniques, and principles that provides a foundation for the effective transfer of information among people.
    a. infrastructure
    b. deliverable
    c. atlas
    d. set-up

32. Communication ____ include providing an environment for open dialogue using straight talk and following an agreed-upon work ethic.
    a. techniques
    b. principles
    c. strategies
    d. tools

33. A “digital ____ system” allows for rapid movement of information inside a company as well as with customers, suppliers, and other business partners.
    a. communications
    b. transference
    c. consolidation
    d. nervous

34. According to Gartner Inc, more than ____ percent of people telecommute or work remotely at least part-time.
a. 37
b. 47
c. 57
d. 67

35. VPN stands for virtual ____ network.
a. personal
b. political
c. private
d. provision

36. ____ are now a common tool for presenting video, graphics, sound, voice, and participant feedback live over the Web.
a. Telecasts
b. Webcasts
c. Hyperlinks
d. Promotions

37. In Microsoft's Enterprise Project Management product, ____ management provides a centralized and consolidated view of programs and projects which allows the user to evaluate and prioritize activities across the organization.
a. resource
b. product
c. portfolio
d. account

38. The ____ feature of Microsoft's Enterprise Project Management product enables an organization to share knowledge immediately and consistently to improve communications and decision making, eliminate redundancies, and take advantage of best practices for project management.
a. project collaboration
b. resource management
c. software management
d. portfolio management

39. The project plan and work results are important ____ performance reporting.
a. results of
b. decisions from
c. outputs of
d. inputs to

40. Administrative ____ consist(s) of verifying and documenting project results and ensuring that records reflect final specifications.
a. acceptance
b. closure
c. contacts
d. directives

41. It is always a good idea to include ____ sections with stakeholder communication analyses to record special considerations or details related to each stakeholder, document, meeting, and so on.
a. customer
b. comment
c. inventory
d. programming

42. If you want to praise a project team member for doing a good job, a(n) ____ would be more comfortable receiving that praise in private.
a. introvert
b. extrovert
c. sensing person
d. feeling person

COMPLETION

1. The 1995 Standish Group study found the three major factors related to information technology project success were user involvement, executive management support, and a clear statement of ___requirements_____.

2. A production _____ that tells stakeholders when to expect different information and when they need to attend key meetings is an important part of the communications management plan.

3. The stakeholder communications analysis serves as a good _____starting_____ point for information distribution.

4. _____Oral_____ communication via meetings and informal talks helps bring important information--positive or negative--out into the open.

5. A(n) ____meeting_____ is an excellent way to address negative behavior.

6. Geographic location and ____cultural_____ background affect the complexity of project communications.

7. Some cultures reserve written documents for ___blinding_____ commitments.

8. Many program and project managers hold monthly _____status_____ review meetings to exchange important project information and motivate people to make progress on their parts of the project.

9. If there is a(n) _____ of the organization, good project archives could provide valuable information very quickly.

10. Stephen Covey created the paradigms of _____shifts_____.

11. Conformance to the values or ethical standards of a group is called _____groupthink_____.

12. When scheduling a meeting, it is important to make ____logistical_____ arrangements by booking an appropriate room, having necessary equipment available, and providing refreshments or entire meals, if appropriate.

13. ___Email_____ is not an appropriate medium for assessing commitment, building consensus, mediating a conflict, resolving a misunderstanding, making an ironic statement, conveying a reference document, reinforcing one's authority, or maintaining confidentiality.

I.	Project description
II.	Project proposal and backup data (request for proposal, statement of work, proposal correspondence, and so on)
III.	Original and revised contract information and client acceptance documents
IV.	Original and revised project plans and schedules (WBS, Gantt charts and network diagrams, cost estimates, communications management plan, etc.)
V.	Design documents
VI.	Final project report
VII.	Deliverables, as appropriate
VIII.	Audit reports
IX.	Lessons-learned reports
X.	Copies of all status reports, meeting minutes, change notices, and other written and electronic communications

14. The table above displays a list of ___final_____ project documentation items.

15. _____ inserted in templates help to provide the most recent project plans, Gantt charts, specifications, meeting information, change requests, and so on to all or selective stakeholders in a timely fashion.

16. Project teams can develop project Web sites using Web-____authoring_____ tools, such as Microsoft FrontPage or Macromedia Dreamweaver.

17. The _____home_____ page for the project site should include contact information, such as names and e-mail addresses for the project manager and Webmaster.

18. Studies show that providing a quiet work environment and a dedicated workspace ___increase_____ programmer productivity.

19. A(n) __stakeholder_____ analysis for project communications helps determine communications needs for different people involved in a project.

20. _____ methods for obtaining information address the issue of who can see a draft document.

ESSAY

1. What is a lessons learned report? When should it be completed? Why is it important?

2. What is the function of oral communication in project communications management?

3. What does communications skills training usually consist of and why is it important?

Chapter 11: Project Risk Management

TRUE/FALSE

1. In many ways, risk management is like a form of insurance.

   True
2. There are ten major processes involved in risk management.
   - False: There are four:
   - Management plan
   - Identification
     - Qualitative risk analysis
     - Quantitative risk analysis
   - Risk response planning
   - Risk monitoring and control

3. The Unfinished Voyages study showed that competent staff was the most important of the project's success criteria factors.

   true
4. On the McFarlan questionnaire, high scores warn you that high risk is involved.
   True

5. The issue of whether hardware, software, and networks function properly is a market risk question.
   false

6. A review of historical information related to risks on similar projects is an important input to the risk identification process.
   true

7. Experiencing unenforceable conditions or contract clauses is a risk condition associated with the communications knowledge area.

true

8. The psychology literature shows that individuals, working alone, produce a greater number of ideas than the same individuals produce through brainstorming in small face-to-face groups.
false

9. In all projects for which you want a profit, the lower the EMV, the better.
false

10. Secondary risks are a direct result of implementing a risk response.
true

11. You cannot use Monte Carlo analysis to estimate project costs.
true

12. Group effects, such as fear of social disapproval, the effects of authority hierarchy, and domination of the session by one or two very vocal people often affect brainstorming by inhibiting idea generation for many participants.
true

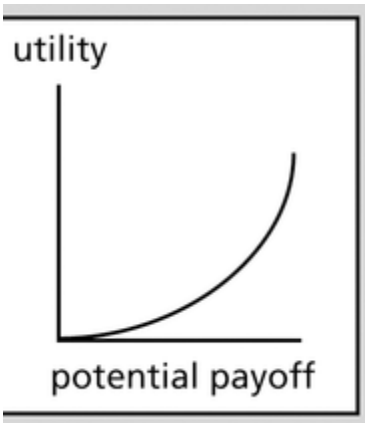
13. Substandard design, materials, or workmanship are risk conditions associated with the cost knowledge area.

false

14. Poor allocation and management of float is a risk condition associated with the time knowledge area.
true

MODIFIED TRUE/FALSE

1. Another name for risk utility is risk tolerance. ___True_____



2. The figure above illustrates the relationship between utility and payoff in the risk averse model.
_____true_____

3. Risk identification involves determining which risks are likely to affect a project and documenting the characteristics of each. _____true_____

4. Risk reaction planning involves taking steps to enhance opportunities and reduce threats to meeting project objectives. ____false_response plan_____

5. A risk management plan documents the procedures for managing risk throughout the project. _____

6. Contingency plans are developed for risks that have a high impact on meeting project objectives, and are put into effect if attempts to reduce the risk are not effective. _____true_____

7. The risk questionnaire developed by F. W. McFarlan and the Dayton Tire Co. can be used to identify the major sources of risk in the categories of people, structure, and technology. _____true_____

8. The issue of whether a project will meet NPV, ROI, and payback estimates falls in the domain of technology risk. _____

9. Identifying risks is the process of understanding what potential unsatisfactory outcomes are associated with a particular project. _____true_____

10. Absence of leadership is a risk condition associated with the communications knowledge area. _____false_ human resource_____

11. A(n) influence diagram represents decision problems by displaying essential elements, including decisions, uncertainties, and objectives, and how they influence each other. _____true_____

12. Secondary risks are risks that remain after all of the response strategies have been implemented. _____false_Residual_____

13. Lack of post-project review is a risk condition associated with the scope knowledge area. _____false_ Integraion_____

14. Applying SWOT to specific potential projects can help identify the broad risks and opportunities that apply in that scenario. _____true_____

MULTIPLE CHOICE

1. William Ibbs and Young H. Kwak performed a study to assess project management __A__.
   a. maturity
   b. development
   c. progress
   d. implementation

2. In the study performed by Ibbs and Kwak, the only knowledge area for which all ratings were less than 3 was ___d_ management.
   a. procurement
   b. human resources
   c. cost
   d. risk

3. KPMG, a large consulting firm, did a study that found that _c___ percent of runaway projects did no risk management at all.
   a. 25
   b. 45
   c. 55
   d. 75

4. The possibility of loss or injury is called __C__.
   a. procurement
   b. damage
   c. risk
   d. scope

5. __B__ is an activity undertaken to lessen the impact of potentially adverse events on a project.
   a. Human resources development
   b. Risk management
   c. Communications marketing
   d. Procurement management

6. Risk utility rises at a decreasing rate for a risk-___B_ person.
   a. averse
   b. seeking
   c. neutral
   d. tolerant

7. Those who are risk-__B__ have a higher tolerance for risk, and their satisfaction increases when more payoff is at stake.
   a. averse
   b. seeking
   c. neutral
   d. tolerant

8. A risk-__C__ person achieves a balance between risk and payoff.
   a. averse
   b. seeking
   c. neutral
   d. tolerant

9. Risk management _D___ involves deciding how to approach and plan the risk management activities for the project.
   a. response
   b. identification
   c. monitoring
   d. planning

10. ___A_ risk analysis involves measuring the probability and consequences of risks and estimating their effects on project objectives.
    a. Quantitative
    b. Qualitative
    c. Identifying
    d. Monitoring

11. The main outputs of risk __B__ include corrective actions in response to risks and updates to the risk response plan.
    a. identification
    b. response
    c. monitoring and control
    d. analysis

12. __B__ plans are predefined actions that the project team will take if an identified risk event occurs.
    a. Fallback
    b. Contingency
    c. Backup
    d. Unanticipated

13. The issue of whether users will accept and use a product or service falls in the domain of __D__ risk.
    a. financial
    b. technology
    c. timing
    d. market

14. The basic concept of the _C___ Technique is to derive a consensus among a panel of experts who make predictions about future developments.
    a. Alpha
    b. Gantt
    c. Delphi
    d. Interviewing

15. **__A__** is a fact-finding technique for collecting information in face-to-face, telephone, e-mail, or instant messaging discussions.
    a. Interviewing
    b. The Delphi Technique
    c. Brainstorming
    d. Analysis

16. SWOT analysis stands for strengths, weaknesses, opportunities, and _D___.
    a. techniques
    b. transitions
    c. trust
    d. threats

17. System or process __D__ charts are diagrams that show how different parts of a system interrelate.
    a. Gantt
    b. flow
    c. pie
    d. influence

18. Risk symptoms, or __C__, are indicators of actual risk events.
    a. milestones
    b. phases
    c. triggers
    d. backlash

19. Risk __A__ are numbers that represent the overall risk of specific events, based on their probability of occurring and the consequences to the project if they do occur.
    a. factors
    b. functions
    c. analyses
    d. insights

20. Top Ten Risk Item __D__ is a qualitative risk analysis tool.
    a. Finding
    b. Following
    c. Maintaining
    d. Tracking

21. A(n) __B__ tree is a diagramming analysis technique used to help select the best course of action in situations in which future outcomes are uncertain.
    a. analysis
    b. decision
    c. risk
    d. factoring

22. Expected __C__ value is the product of a risk event probability and the risk event's financial value.
    a. momentary
    b. total
    c. monetary
    d. base

23. Risk __A__ involves eliminating a specific threat or risk, usually by eliminating its causes.
    a. avoidance
    b. acceptance
    c. transference
    d. mitigation

24. Risk __C__ is shifting the consequence of a risk and responsibility from its management to a third party.
    a. avoidance
    b. acceptance
    c. transference
    d. mitigation

25. Risk __B__ means tolerating the consequences should a risk occur.
    a. avoidance
    b. acceptance
    c. transference
    d. mitigation

26. __C__ (by C/S Solutions, Inc.) is a comprehensive risk analysis tool that integrates with Project 2002 to quantify the cost and schedule uncertainty associated with projects.
    a. Risk +
    b. AllRisk
    c. MSRisk
    d. Top Ten Risk

27. To use a(n) _C___-based simulation to estimate the probability of meeting specific schedule goals, you would collect optimistic, pessimistic, and most-likely duration estimates for project tasks on a network diagram.
    a. PERT
    b. Mitigation
    c. Monte Carlo
    d. Top Ten

28. _D___ help you trace problems back to their root cause.
    a. Influence diagrams
    b. Flow charts
    c. Gantt charts
    d. Fishbone diagrams

29. __B__ risk analysis involves assessing the likelihood and impact of identified risks to determine their magnitude and priority.

a. Integrated
b. Qualitative
c. Influential
d. Trigger

COMPLETION

1. Projects that have significant cost or schedule overruns are called _____Runaway_____ projects.

2. The amount of satisfaction or pleasure received from a potential payoff is called risk _____utility_____.

3. When more payoff or money is at stake, a person or organization that is risk-____averse_____ gains less satisfaction from the risk.

4. A risk-_____averse_____ person prefers outcomes that are more uncertain and is often willing to pay a penalty to take risks.

5. _____Quantitive_____ risk analysis involves characterizing and analyzing risks and prioritizing their effects on project objectives.

6. Risk _____mitigation_____ is reducing the impact of a risk event by reducing the probability of its occurrence.

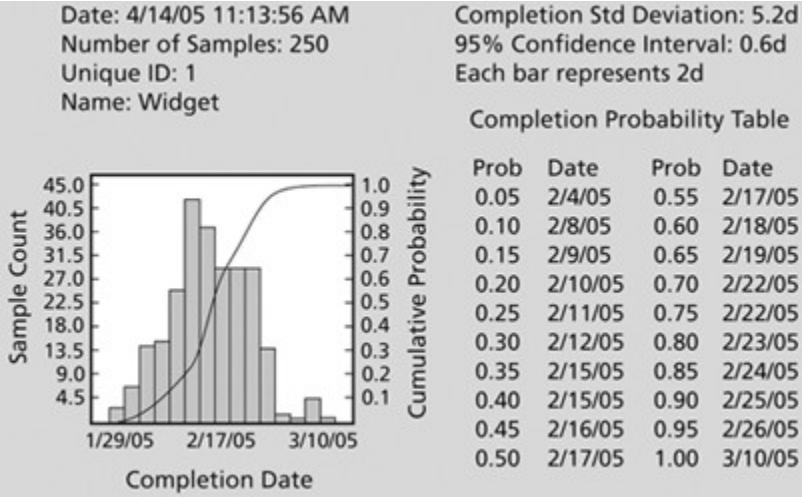
7. Contingency reserves or contingency _____plans_____ are provisions held by the project sponsor that can be used to mitigate cost or schedule risk if changes in project scope or quality occur.

8. _____Brainstorming_____ is a technique by which a group attempts to generate ideas or find a solution for a specific problem by amassing ideas spontaneously and without judgment.

9. In order to create a decision tree, and to calculate expected monetary value specifically, you must estimate the _____actions_____, or chances, of certain events occurring.

10. A(n) _____Monte Carlo_____ analysis simulates a model's outcome many times to provide a statistical distribution of the calculated results.

11. _____Workarounds_____ are unplanned responses to risk events.



12. The figure above illustrates the results from a(n) ___Monte Carlo_____-based simulation of a project schedule.

13. The figure above shows that there is a(n) _____10_____ percent probability that the project will be completed by 2/08/05.

ESSAY

1. Explain the history and function of the Delphi Technique.

2. How could Cliff Branch in the opening case in the book have used a probability/impact matrix?

3. What is accomplished by a risk management review?

Chapter 12: Project Procurement Management

TRUE/FALSE

1. The term procurement is widely used in the government. T

2. Clients are often able to use economies of scale that may not be available to outsourcing suppliers.
T

3. Work is occasionally outsourced without a formal solicitation.
T

4. The make-or-buy decision is an important organizational milestone that comes after source selection.
   F

5. Many organizations use make-or-buy analysis to decide between purchasing or leasing items for a particular project.
   T

6. Internal experts should be consulted after procurement planning so as not to interfere with the initial set-up.
   F

7. In terms of contracts, a fixed-price incentive contract has the least amount of risk for the buyer.
   F

8. Time and material contracts require the buyer to pay the supplier a predetermined amount per unit of service, and the total value of the contract is a function of the quantities needed to complete the work.

   T
9. The SOW should not use industry terms, rather it should attempt to phrase itself in easily understood language.

10. A SOW should become part of the official contract. T

11. RFPs usually do not take nearly as long to prepare as RFQs. T

12. In the source selection process, technical criteria should be given more weight than management or cost criteria.
    T

13. Many project managers know very little about contract administration. T

14. Ideally, the project manager and his or her team should both be actively involved in the contract. T

15. Non-technical issues are of secondary importance in the attempt to get the most value out of new technologies.
    T

MODIFIED TRUE/FALSE

1. U.S. federal spending on IT outsourcing services is projected to more than <u>triple</u> by 2007.
   _____

2. The Navy-Marine Corps Internet contract awarded in October 2000 was the U.S. government's biggest ever technology outsourcing contract. _____

3. Procurement planning involves documenting product requirements and identifying potential sources. _____

4. Contract close-out involves completion and settlement of the contract. _____

5. The project scope statement, product descriptions, and market conditions are all outputs needed for procurement planning. _____

6. Make-or-buy analysis involves estimating the internal costs of providing a product or service and comparing that estimate to the cost of outsourcing. _____

7. A(n) fixed-price contract is another name for a lump-sum contract. _____

8. Direct costs are costs related to the project that cannot be traced back in a cost-effective way. _____

9. Suppliers have the lowest risk with firm-fixed price contracts. _____

I. **Scope of Work:** Describe the work to be done in detail. Specify the hardware and software involved and the exact nature of the work.

II. **Location of Work:** Describe where the work must be performed. Specify the location of hardware and software and where the people must perform the work.

III. **Period of Performance:** Specify when the work is expected to start and end, working hours, number of hours that can be billed per week, where the work must be performed, and related schedule information.

IV. **Deliverables Schedule:** List specific deliverables, describe them in detail, and specify when they are due.

V. **Applicable Standards:** Specify any company or industry-specific standards that are relevant to performing the work.

VI. **Acceptance Criteria:** Describe how the buyer organization will determine if the work is acceptable.

VII. **Special Requirements:** Specify any special requirements such as hardware or software certifications, minimum degree or experience level of personnel, travel requirements, and so on.

10. The figure above is an example of an SOW template. _____

11. Stakeholders in the procurement process should be involved in choosing the supplier for the project. _____

12. BAFO stands for best and fixed offer. _____

13. Change control is an important part of the contract administration process. _____

14. The term e-procurement is now used for various procurement functions that are done electronically. _____

15. Procurement audits identify lessons learned during the procurement process. _____

MULTIPLE CHOICE

1. IT professionals generally use the term ____ rather than procurement.
   a. purchasing
   b. outsourcing
   c. obtaining
   d. absorbing

2. The U.S. market for IT outsourcing was projected to pass $110 ____ by 2003.
   a. thousand
   b. million
   c. billion
   d. trillion

3. There are ____ central processes of project procurement management.
   a. three
   b. four
   c. five
   d. six

4. In ____, one must decide what to outsource, determine the type of contract, and create a statement of work.
   a. procurement planning
   b. solicitation planning
   c. source selection
   d. solicitation

5. An RFP is often issued at the end of the ____ process.
   a. procurement planning
   b. solicitation planning
   c. source selection
   d. solicitation

6. ____ involves managing the relationship with the supplier.

a. Source selection
b. Solicitation
c. Contract administration
d. Contract close-out

7. ____ involves obtaining quotations, bids, offers, or proposals as needed.
a. Source selection
b. Solicitation
c. Contract administration
d. Contract close-out

8. A ____ decision is one in which an organization decides if it is in their best interests to produce certain products or services themselves, or if they should purchase them from an outside organization.
a. make-or-buy
b. sink-or-swim
c. give-and-take
d. back-and-forth

9. The key output of ____ is the awarding of the contract.
a. contract administration
b. solicitation
c. contract close-out
d. source selection

10. At the end of ____, there is a formal acceptance and closure of the contract.
a. contract administration
b. solicitation
c. contract close-out
d. source selection

11. There are ____ central categories of contracts.
a. three
b. four
c. five
d. six

12. ____ contracts involve payment to the supplier for direct and indirect actual costs.
a. Time and material
b. Unit costs
c. Fixed-price
d. Cost-reimbursable

13. ____ contracts are most often used for services that are needed when the work cannot be clearly specified and total costs cannot be estimated in a contract.
a. Time and material
b. Unit costs
c. Fixed-price
d. Cost-reimbursable

14. Time and material contracts are a hybrid of both fixed-price and ____ contracts.
a. lump-sum
b. unit costs
c. fixed-price
d. cost-reimbursable

15. The cost-reimbursable contract with the lowest risk to the buyer is the ____ contract.
a. cost plus percentage of costs
b. cost plus fixed percentage
c. cost plus incentive fee
d. cost plus fixed fee

16. The ____ is a description of the work needed for the procurement.
a. RFP
c. CPIF

b. SOW
d. FPI

17. A key factor in evaluating IT bids is the past performance record of the ____.
a. government
b. buyer
c. bidder
d. client

18. ____ do most of the work in the solicitation process.
a. Governments
b. IT managers
c. Buyers
d. Suppliers

19. Suppliers who are finalists in the source selection process are often asked to prepare a ____.
a. CPIF
b. BAFO
c. RFP
d. SOW

20. The final output from the source selection process is a(n) ____.
a. BAFO
b. SOW
c. product
d. contract

21. According to Department 56, Inc., Arthur Andersen charged them approximately ____ times as much as they had agreed upon for a new outsourced computer system.
a. two
b. three
c. four
d. five

22. The final process in project procurement management is ____.
a. solicitation
b. source selection
c. contract administration
d. contract close-out

23. Contract files and formal acceptance are outputs from ____.
a. contract close-out
b. source selection
c. contract administration
d. solicitation

24. Most organizations use ____ software to create proposal evaluation worksheets.
a. word-processing
b. spreadsheet
c. database
d. presentation

COMPLETION

1. __ procurement_____ means acquiring goods and/or services from an outside source.

2. A(n) _____ **contract**_____ is a mutually binding agreement that obligates the buyer to pay for the specified products or services and obligates the seller to provide them.

3. An RFP is a Request for ____ Proposal_____.

4. ____supplier_____ selection includes choosing from among potential suppliers through a process of evaluation.

5. ____ procurement _____ planning is the process of identifying which project needs can best be met by using products or services outside the organization.

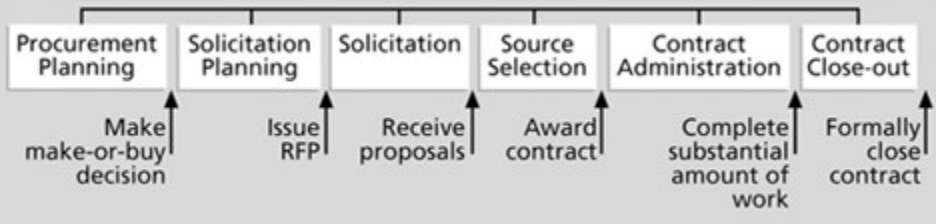
6. _____-sum contracts involve a fixed total price for a well-defined product or service.

7. An FFP contract stands for ____firm_____ fixed price.

8. The total value of the _____ price contract_____ is a function of the quantities needed to complete the work at a predetermined rate.

9. A(n) __Sweep _____ clause is a contract clause that allows the buyer or supplier to end the contract.

10. SOW stands for statement of ____work _____.



11. The figure above shows project _____ management processes.

12. A Request for ____ proposal_____ (RFQ) is a document used to solicit bids from potential suppliers.

13. _____ Solicitation_____ involves obtaining proposals or bids from prospective suppliers.

14. A(n) __pre-bid_____ conference is a meeting with prospective suppliers prior to preparation of a proposal.

15. Source selection experts strongly recommend that buyers use formal __ proposal __ evaluation sheets during source selection.

ESSAY

1. Describe cost plus percentage of costs (CPPC) contracts.

2. Discuss constructive change orders. Give an example.

3. Discuss ERP systems.