Chapter 2: Initializing and Conceptualizing the IT Project

True/False

1. A methodology provides a strategic-level plan for managing and controlling IT projects.
   a. True
   b. False

True

2. A business case is a deliverable that documents the project's goal, as well as several alternatives or options.
   a. True
   b. False

True

3. Project Management processes include Scope, Schedule, Budget, and Quality.
   a. True
   b. False

False

4. The SDLC (systems development life cycle) is a deliverable from the project charter.
   a. True
   b. False

False

5. The project charter is a key deliverable for the second phase of the IT project methodology.
   a. True
   b. False

True

6. For the sake of efficiency and unity of purpose and direction, it is usually

advisable to have the project manager take sole responsibility for developing the business case.
a. True
b. False
False

7. **The primary focus of "the conceptualize and initialize phase" is to determine the overall goal of the project.**
a. True
b. False
True

8. **The MOV should be adjusted at each phase of a project to align with the realities of project execution.**
a. True
b. False
False

9. **Feasibility focuses on what can go wrong and what must go right.**
a. True
b. False
False

10. **Feasibility focuses on whether a particular alternative is doable and worth doing.**
a. True
b. False
True

11. **The MOV should explicitly state the technology that will support the IT project.**
a. True
b. False
False

12. The total cost of ownership (TCO) includes only the direct or up-front costs and ongoing expenditures.
a. True
b. False

False

13. The total benefits of ownership (TBO) should address the benefits of an alternative over its useful life.
a. True
b. False

True

14. A significant deficiency of the payback method of analyzing alternatives is the failure to account for the time value of money.
a. True
b. False

True

15. All cash flows over the useful life of a project alternative must be included in the payback method of analysis.
a. True
b. False

False

16. The net present value method of project valuation takes into account all relevant cash flows as well as the company's required rate of return.
a. True
b. False

True

17. In general, riskier project alternatives will have a lower breakeven point than less risky project alternatives.
a. True
b. False

False

18. Scoring models are useful because they allow for the inclusion of qualitative factors.
a. True
b. False

True

19. A scoring model can combine both qualitative items based reflected in the weights and scores that are based on people's judgments.
a. True
b. False

True

20. The Balance Scorecard approach employs four perspectives for analyzing project benefits: Financial Perspective, Customer Perspective, Competitor Perspective, and Internal Processes Perspective.
a. True
b. False

False

Multiple Choice

1. An Information Technology Project Methodology (ITPM)

a) is an alternative metric for deciding between competing projects.
b) is a six-phase program described by PMBOK® and offered as a generally accepted industry practice.
c) is specified by parameters of the business case.
d) is a set of deliverables derived from the various PLC phases.
e) is a strategic-level plan for managing and controlling IT projects.

Answer: E (p. 35)

2. Scope and schedule are examples of:

a) Project Management processes.
b) Project Management tools.
c) PMBOK® areas of knowledge
d) Project Management objectives
e) Project Management infrastructure.

Answer: D (p. 36)

3. Planning, executing, and controlling are examples of:

a) Project Management process groups.
b) Project Management tools.
c) PMBOK® areas of knowledge
d) Project Management objectives
e) Project Management infrastructure.

Answer: A (p. 36)

4. The first stage of the IT project methodology focuses on:

a) choosing the project team members.
b) defining the overall goal of the project.
c) conceptualizing alternative approaches to project development.
d) identifying the project's scope.
e) identifying project managers and sponsors.

Answer: B (p. 37)

5. The project charter is a key deliverable from _____ and addresses, along with other questions, _____:

a) phase 1, How long will this project take
b) phase 1, Who is the project sponsor?
c) phase 5, What scope controls will be used?
d) phase 2, How much will the project cost?
e) phase 3, A detailed risk plan.

Answer: D (p. 37)

6. The _____ gives authority to the project manager to begin carrying out the processes and tasks associated with the systems development life cycle .

a) business case
b) project sponsor
c) initiating process
d) implementation plan
e) project charter

Answer: E (p. 37)

7. ___ provides all the tactical details concerning who will carry out the work and when it will be accomplished.

a) Business case
b) Strategic plan
c) Initiating process
d) Project plan
e) project charter

Answer: D (p. 37)

8. The IT project management foundation includes all of the following except:

a) PM processes
b) PM objectives
c) PM methodologies
d) PM tools
e) PMBOK® knowledge areas

Answer: C (p. 40)

9. Which of the following statements about the business case is <u>NOT</u> true:

a) A business case provides an analysis of feasibility
b) A business case provides senior management with sufficient information to fund a project.
c) A business case provides details of possible impacts, costs and benefits.
d) A business case provides a project budget.
e) A business case may be a large, formal document.

Answer: D (p. 37)

10. The business case is the key deliverable for:

a) phase 1.
b) phase 2.
c) phase 3.
d) phase 4.
e) phase 5.

Answer: A (p. 37)

11. Which of the following was NOT given as a reason for recruiting a core team to develop the business case?

a) enhanced credibility
b) alignment with organizational goals
c) access to real costs
d) early identification of project team.
e) shared sense of ownership

Answer: D (p. 37)

12. ___ focuses on carrying out the project plan to deliver the IT product and managing the project to achieve the goal.

a) Conceptualize and initialize the project (Phase 1)
b) Develop the project charter and plan (Phase 2)
c) Execute and control (Phase 3)
d) Close project (Phase 4)
e) Evaluate project success (Phase 5)

Answer: C (p. 38)

13. Verification of all project deliverables occurs during __.

a) Conceptualize and initialize the project (Phase 1)
b) Develop the project charter and plan (Phase 2)
c) Execute and control (Phase 3)
d) Close project (Phase 4)
e) Evaluate project success (Phase 5)

Answer: D (p. 38)

14. The overall goal and measure of project success is:

a) the project's MOV.
b) the project's NPV.
c) the project's technical competency.
d) the project's adherence to budget and schedule.
e) the project's end-user acceptance.

Answer: A

15. The ___ infrastructure supports and manages the project within the organization.

a) organizational
b) project
c) technical
d) process
e) control

Answer: A (p. 41)

16. The ___ infrastructure supports the project in terms of the environment and team itself.

a) organizational
b) project

c) technical
d) process
e) control

Answer: B (p. 41)

17. The ___ infrastructure provides the hardware and software tools to support the project team.

a) organizational
b) project
c) technical
d) process
e) control

Answer: C (p. 41)

18. All of the following are steps in developing the project MOV except:

a) Identify the available organizational resources.
b) Identify the desired value of the IT project.
c) Develop an appropriate metric.
d) Set a time frame for achieving MOV.
e) Verify and get agreement from project stakeholders.

Answer: A (p.44)

19. Which of the following statements is the best indicator that the new software project was successful.

a) The project's product, a software system, was enthusiastically accepted by 100% of the end users who were able to begin using it after completing only a one-day training session.

b) The project's product, a software system, was a week late and 2% over budget, but six months later was found to have met the company's goal of reducing service callbacks by 15%.
c) The project's product, a software system, was completed two weeks ahead of time freeing up the entire development team to begin work on other projects.
d) The project's product, a software system, was completed right on schedule and was delivered $10,000 under the $100,000 budget allocation.
e) The project's product, a software system, was completed on time and on budget and was tested and shown to be 100% bug-free.

Answer: B (p.45)

20. Which of the following is the best MOV statement?

a) Our project should make Dayton customers flock to the stores in droves to buy our products.
b) Our project should be completed in no more than 180 days and should cost no more than $150,000 and be completed 100% in-house.
c) Our project should increase sales in the Dayton market by 15% next year to complete our company's Ohio expansion strategy.
d) Our project should utilize the Spiral Development approach to eliminate 95% of the major risks to our Dayton sales program.
e) Our project should produce an advertising campaign in Dayton that

wins the Ohio Advertising Guild's Award for most creative campaign.

Answer: C (p. 45)

21. A project that increased market share would impact the ___area of an organization.

a) strategic
b) customer
c) financial
d) operational
e) social

Answer: A (p. 47)

22. A project that provided customers better products and services would impact the ___area of an organization.

a) strategic
b) customer
c) financial
d) operational
e) social

Answer: B (p. 47)

23. A project that increased profits would impact the ___area of an organization.

a) strategic
b) customer
c) financial
d) operational
e) social

Answer: C (p. 47)

24. A project that improved operational effectiveness would impact the ___area of an organization.

a) strategic
b) customer
c) financial
d) operational
e) social

Answer: D (p. 47)

25. A project that provided cleaner air would impact the ___area of an organization.

a) strategic
b) customer
c) financial
d) operational
e) social

Answer: E (p. 47)

26. A company utilizes the payback method exclusively to select projects. Which of the following mutually exclusive (they can only do one of them) projects will they choose? (Assume cash flows occur in equal monthly installments)

a) Initial Investment: $10,000 Net Cash Flows: year 1:$0 year 2:$120,000 year 3:$60,000 each year thereafter:$60,000
b) Initial Investment:$100,000 Net Cash Flows: year 1:$50,000 year 2:$50,000 year 3:$100,000 each year thereafter:$1,000,000
c) Initial Investment:$10,000 Net Cash Flows: year 1:0 year

2:$100,000 year 3:$100,000 each year thereafter:$100,000

d) Initial Investment:$100,000 Net Cash Flows: year 1:$1,000,000 year 2:$2,000,000 year 3:$2,000,000 each year thereafter:0

e) Initial Investment:$10,000 Net Cash Flows: year 1:$8,000 year 2:$12,000 year 3:$120,000 each year thereafter:$120,000

Answer: A (p. 54)

27. Evaluating the feasibility of an alternative in terms of the funds and resources available to support a project for the organization is a measure of ___.

a) organizational feasibility
b) technical feasibility
c) economic feasibility
d) legal feasibility
e) ethical feasibility

Answer: C (p. 51)

28. Determining whether employees will be able to adapt to the planned change is ___.

a) organizational feasibility
b) technical feasibility
c) economic feasibility
d) legal feasibility
e) ethical feasibility

Answer: A (p. 51)

29. Determining whether the proposed solution will work within the software architecture is a measure of ____.

a) organizational feasibility
b) technical feasibility
c) economic feasibility
d) legal feasibility
e) ethical feasibility

Answer: B (p. 51)

30. Evaluating the feasibility of an alternative in terms of the funds and resources available to support a project for the organization is a measure of ____.

a) organizational feasibility
b) technical feasibility
c) economic feasibility
d) legal feasibility
e) ethical feasibility

Answer: C (p. 51)

31. How many widgets would a company have to sell if their initial investment was $60,000 and widgets sold for $25? Materials to produce 100 widgets cost $1000. Direct labor costs $2.50 per widget. Total indirect costs & overhead is 10% of the selling price.

a) 4,800
b) 6,000
c) 8,000
d) 8,142
e) Not enough information to calculate.

Answer: B (p.54)

32. Calculate the ROI for a project with total expected costs of $40,000 and total expected benefits of 35,000.

a) -12.5%
b) 12.5%
c) 1.875%
d) 187.5%
e) -18.75%

Answer: A (p. 55)

33. Calculate the Net Present Value for a project with the following cash flows: Year 0: ($5,000) Year 1: $10,000 Year 2: $10,000 Year3: ($2,000). The discount rate is 5%.

a) $19,209.75
b) $14,209.75
c) $18,840.25
d) $23,840.25
e) $12,350.00

Answer: B (p. 55)

34. Trying to decide between three alternatives, a company employed a scoring model. Three criteria were chosen. Criteria A was believed to be the most important and so was given a weight of 50%. The other two were deemed to be equal to each other in importance. A relative scoring range of 0 to 10 was used. The table below shows each alternative and their scores. Which alternative should the company choose?

Criteria	Alternative A	Alternative B	Alternative C
A	5	6	7
B	8	7	7
C	8	8	5

a) Choose alternative A
b) Choose alternative B
c) Choose alternative C
d) Choose either alternative A or B
e) Choose either alternative A or C

Answer: B (p. 57)

35. Which of the following is NOT a perspective from the Balanced Scorecard Approach?:

a) Financial Perspective
b) Internal Processes Perspective
c) Innovation & Learning Perspective
d) Customer Perspective
e) Organizational Value Perspective

Answer: E (p. 60)

36. The text cites all of the following as reasons supporting the selection of an IT project except:

a) The project is doable and worth doing
b) The project maps directly to the organization's strategies and goals
c) The project provides measurable organizational value.
d) The project represents a cutting edge technology that fits the team skill set.

e) The project ranks favorably based on the companies adaptation of the Balanced Scorecard Approach.

Answer: D (p. 60)

Short Answer Questions

1. What are the advantages of having and following a project methodology?

- Methodologies provide the project team with a game plan for implementing the project and product life cycles so that the team can focus on the tasks at hand, instead of always worrying about what they are supposed to do next.
- A methodology provides a common language that allows the project team, project sponsor, and others within the organization to communicate more effectively.
- A standardized methodology allows management to compare different projects more objectively which in turn will allow management to make better-informed and more objective decisions with respect to which projects get selected and whether funding should continue to support a particular project.

2. Describe the five phases of the IT project methodology.

- Phase 1: Conceptualize and Initialize: This phase focuses on defining the overall goal of the project. Alternatives that would allow the organization to meet its goal are then identified. Next, the costs and benefits, as well as feasibility and risk, of each alternative are analyzed. Based upon these analyses, a specific alternative is recommended for funding. Finally, the project's goal and the analysis of alternatives that support the goal are summarized in a deliverable called the business case.
- Phase 2: Develop the Project Charter and Detailed Project Plan: The project charter is a key deliverable for the second phase. The project charter clarifies the project's goal and defines the project's objectives in terms of scope, schedule, budget, and quality standards. In addition, the project charter identifies and gives authority to a project manager to begin carrying out the processes and tasks associated with SDLC. The project plan provides all the tactical details concerning who will carry out the project work and when. Additionally, the project's scope, schedule, budget, and quality objectives are defined in detail.
- Phase 3: Execute and Control the Project: focuses on execution and control—carrying out the project plan in order to deliver the IT product and managing the project's processes in order to achieve the project's goal. During this phase the project team uses a particular approach and set of systems analysis and design tools for implementing the systems development life cycle (SDLC). In addition, the project manager must ensure that the environment and infrastructure support the project.
- Phase 4: Close Project: After the information system has been developed, tested, and installed, a formal acceptance should transfer control from the project team to the client or project sponsor. The project team should prepare a final project report and presentation to document and verify that all the project deliverables have been completed as defined in the project's scope.
- Phase 5: Evaluate Project Success: this phase focuses on evaluating four areas:
    - First, a "postmortem," or final project review, should be conducted by the project manager and team.
    - Second, an evaluation between the project manager and the individual

project team members is conducted.
- Third, an outside third party should review the project, the project manager, and project team.
- Fourth, the project must be evaluated in order to determine whether the project provided value to the organization.

3. What is a project charter?

The project charter is a key deliverable for the second phase of the IT project methodology. It defines how the project will be organized and how the project alternative that was recommended and approved for funding will be implemented. The project charter provides another opportunity to clarify the project's goal and defines the project's objectives in terms of scope, schedule, budget, and quality standards. In addition, the project charter identifies and gives authority to a project manager to begin carrying out the processes and tasks associated with the systems development life cycle (SDLC).

4. Describe the five project management processes.

- *Initiating processes*—to start or initiate a project or phase once commitment is obtained.
- *Planning processes*—to develop and maintain a workable plan to support the project's overall goal.
- *Executing processes*—to coordinate people and other resources to execute the plan.
- *Controlling processes*—to ensure proper control and reporting mechanisms are in place so that progress can be monitored, problems identified, and appropriate actions taken when necessary.
- *Closing processes*—to provide closure in terms of a formal acceptance that the project or a project's phase has been completed satisfactorily.

5. What is a project infrastructure?

The project infrastructure supports the project team in terms of the project environment and the project team itself. It includes:

- *The project environment*—The physical workspace for the team to meet and work.
- *Roles and responsibilities of the team members* —This determines the reporting relationships, as well as the responsibilities and authorities of the individual team members.
- *Processes and controls*—Processes and controls provide support for managing all aspects of the project. They ensure that the project's goal and objectives are being met.

6. Discuss how the project management knowledge areas support the IT project methodology.

The Project Management Body of Knowledge (PMBOK®) encompasses nine areas generally accepted as having merit for effectively managing projects. These nine areas support both the project processes and product by providing a foundation of knowledge for supporting projects within a particular organization. As an organization gains more experience with projects over time, the lessons learned from every project contribute to each of these nine areas. Ideally, these lessons will lead to an IT project management knowledge base that can be used to identify best practices that adapt the IT project methodology to an organization's needs, culture, and IT project environment. This base of knowledge can then be institutionalized throughout the organization and its projects.

7. What is a business case?

A business case is the first deliverable in the IT project life cycle. It provides an analysis of the organizational value, feasibility, costs, benefits, and risks of several proposed alternatives or options.

8. Describe how a project's MOV can support an organization's goals and strategies.

As shown by the IT Value Chain, an organizational goal leads to or defines certain organizational strategies. A project's MOV should be designed to align with and support those strategies. At the project's end, the project's results can be compared to the initial MOV. With a successful project, one should see successful execution of organizational strategies and a measurable realization of some organizational goal.

9. What is Total Cost of Ownership?

(TCO) is a concept that has gained widespread attention in recent years and generally refers to the total cost of acquiring, developing, maintaining, and supporting the application system over its useful life. TCO includes such costs as:

- *Direct or up-front costs*—Initial purchase price of all hardware, software, and telecommunications equipment, all development or installation costs, outside consultant fees, etc.
- *Ongoing costs*—Salaries, training, upgrades, supplies, maintenance, etc.
- *Indirect costs*—Initial loss of productivity, time lost by users when the system is down, the cost of auditing equipment (i.e., finding out who has what and where), quality assurance, and post implementation reviews.

10. Describe the criteria that should be used to make a project selection decision.

The decision to approve an IT project requires a number of conditions be met:

- The IT project must map directly to the organization's strategies and goals.
- The IT project must provide measurable organizational value that can be verified at the completion of the project.

- The selection of an IT project should be based upon diversity of measures that include:
    - Tangible costs and benefits
    - Intangible costs and benefits
- Various levels throughout the organization (e.g., individual, process, department, and enterprise)

Essay Questions

1. **Define an IT project methodology and describe its phases.**

2. **What is the purpose of a project charter?**

3. **Define, compare, and contrast project management processes and project-oriented processes.**

4. **Describe at least four reasons that the text gives for undertaking an IT project.**

5. **What is the purpose of a Business Case and what are the characteristics of a good Business Case?**

6. **What is Measurable Organizational Value (MOV) and what are the four major characteristics of a good MOV?**

7. **The text discusses numerous aspects of feasibility; name and define three of them.**

8. **There are numerous financial models for analyzing the benefits from a project. Among those models discussed in the chapter are: payback, breakeven, return on investment (ROI), net present value (NPV), and scoring models. What are the strengths and weaknesses of each approach to analyzing value?**

9. **Described the Balanced Scorecard Approach and list at least three significant reasons why it can fail as an analysis tool.**

10. **What are the three infrastructures that are needed to support the IT project? Describe the components of each of the infrastructures.**