TEST BANK

Second Edition

INFORMATION TECHNOLOGY PROJECT MANAGEMENT

Providing Measureable Organizational Value

Microsoft Project CD Included

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Chapter 2: Initializing and Conceptualizing the IT Project

True/False

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

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

3. Project Management processes include scope, schedule, budget and quality
False

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

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

7. The focus of "the conceptualize and initialize" phase is to determine whether a proposed project should and can be done.
True

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

9. Feasibility focuses on what can go wrong and what must go right.
False

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

11. The MOV should explicitly name the technology that will support the IT project.
False

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

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

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

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

17. The answer to a breakeven analysis is almost always expressed in a currency metric.
False

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

19. Selecting multiple risky projects that have low correlation to each other can result in a portfolio of projects whose overall risk is lower than the individual project's risk.
True

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

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

3. 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

4. The project charter is a key deliverable from _____ and addresses _____:

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

Answer: d

5. 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

6. 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

7. Which of the following statements about the business case is NOT 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

8. 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

9. 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

10. 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

11. 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

12. 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

13. 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

14. 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

15. 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 and 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

16. 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

17. 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

18. 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 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

19. 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

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

a) The project's covariance with other projects leads to a reduction in the overall project portfolio risk.
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

Short Answer Questions (From End of Chapter Review 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 enables 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 will facilitate 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 enable the organization to meet its goal are then identified. Next, the costs and benefits, as well as the 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 the tactical details of 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: Carrying out the project plan in order to deliver the IT product and manage the project's processes in order to achieve the project's goal. During this phase the project team uses a particular approach, 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:
     - The project manager and team should conduct first, a "postmortem," or final project review.
     - 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 provides value to the organization.

3. Why is it important to have deliverables for each phase of the IT project methodology?

Deliverables are tangible products of the work completed in a phase and serve to define the work and resources needed for each phase.

4. How can the experiences of and lessons learned by past project team members be incorporated into a project methodology?

The experiences of and lessons learned by past project team members should be incorporated into a project methodology by developing a set of best practices that fit the organization and the projects it undertakes. The creation of a project management office affords a means for studying the company's IT projects, which can provide a basis for estimating and conducting reality checks for projects. Lessons learned and best practices should be documented in Phase 5 (Evaluate Project Success) of the project methodology and then added to the organization's institutional practices.

5. **Describe the "conceptualize and initialize phase" of the IT project** methodology.

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.

6. 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).

7. What are the advantages of developing a detailed project plan after a project has been approved for funding?

Having the business case in place makes it easier to define the details of the project (who does what and when). Additionally, since the project plan is tactical in nature and the business case is strategic, having goals and objectives in place prevents confusion between tactics and objectives. Finally if the project is not doable and or worth doing (which the business plan should demonstrate), any time and resources spent on a detailed plan would be wasted.

8. **Describe the "execute and control phase" of the IT project methodology.**

The Execute and Control phase of the project focuses on 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.

9. **Describe the "close project phase" of the IT project methodol**ogy.

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.

At this time, the final cost of the project can be determined. The consultant may also invoice the client for any remaining payments or the accounting department may make any final internal charges to appropriate accounts. In addition, the project manager and team must follow a set of processes to formally close the project. These processes include such things as closing all project accounts, archiving all project documents and files, and releasing project resources.

10. **Describe the "evaluate project success phase" of the IT project methodology.**

This phase is marked by four different reviews:

- The project manager and team should conduct first, a "postmortem," or final project review.
- 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 provides value to the organization.

Ultimately project success is measured by the value it brings to the organization and by the degree to which it met its intended goal. This value may not be clearly discernable immediately after the project is implemented. It may take some weeks or months before the value is fully known.

11. 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.

12. Why can a project that is developed under budget and before its deadline still not be considered successful?

Stating that a project was developed on time and under budget does not answer the important question: Did the project meet its goals in terms of objectives such as scope, quality and customer satisfaction? Did it deliver all it promised?

13. What are tools needed to support an IT project?

Tools develop and manage scope, schedule, budget, and quality. Similarly, tools support the development of the information system. For example, computer aided software engineering (CASE) tools and models support the analysis and design phases of development.

14. How does an organizational infrastructure support a project?

The organizational infrastructure determines how projects are supported and managed within the organization. The organizational infrastructure influences how project resources are allocated, the reporting relationships of the project manager and the project team members, and the role of the project within the organization.

15. 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.

16. Describe a technical infrastructure that would be needed to support a consulting team working at a client site.

The technical infrastructure provides the hardware and software tools that support the project team. It may include such things as project management software, e-mail, voice mail, word processing, and access to the Internet.

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

The Project Management Body of Knowledge (PMBOK) encompasses nine areas generally accepted 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.

18. 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.

19. Why should an organization develop a business case?

The purpose of a business case is to show how an IT solution can create business value. Since firms have limited resources, they must have a way of deciding which projects to fund. This is done by comparing the potential value of proposed projects as shown in their respective business cases.

20. What is the purpose of selecting a core team to develop a business case?

By selecting a team to develop a business case instead of ceding responsibility to an individual, organizations enjoy an increase in credibility, the ability to align projects with organizational goals, and access to real costs. Additionally, the deployment of a team can lead to a wider sense of ownership, agreement on data and methods, and bridge ideas between interest groups.

21. **What is a project's measurable organizational value (MOV)?**

The MOV is the overall goal and measure of success of a project.

22. Develop a MOV for an organization that is contemplating developing a corporate intranet.

Examples may focus on such things as

- Provide current versions of 95% of all personnel policies, procedures, handbooks, and current job postings
- Save $100,000 in annual paper costs
- Reduce the number of full-time employees in HR from 3 to 2

23. **Why must a project's MOV be agreed upon?**

A clear and agreed upon MOV sets expectations for the project stakeholders. If multiple stakeholders are involved, it is sometimes easy to attempt to satisfy everyone by agreeing to an unrealistic or unachievable MOV. Such a condition can be detrimental to careers, the project team, and everyone's morale. Joint responsibility requires joint goals and agreed upon measures of success.

24. **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 these strategies. At the project's end, the 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.

25. Describe how an IT project can bring value to an organization.

IT projects can bring value to an organization in at least 4 ways identified by their key words:

- *Better*—What does the organization want to do better? (For example, improve quality or increase effectiveness?)
- *Faster*—What does the organization want to do faster? (Increase speed, increase efficiency, or reduce cycle times?)
- *Cheaper*—What does the organization want to do cheaper? (Reduce costs?)
- *Do more*—What does the organization want to do more than it is currently? (Growth or expansion?)

26. What is a base case alternative? Why should a business case even consider a base case alternative?

The base case alternative is what the organization will do if no project is undertaken. That is – maintain the status quo and do not pursue any options described in the business case. Knowing what the benefits and costs of continuing with the status quo will allow an organization to determine if an investment in another alternative will provide net positive value to the organization.

27. Describe Economic Feasibility.

Economic Feasibility requires an organization to consider if the funds and other resources are available to support the project and if the proposed project will yield the benefits envisioned in the project statement. Conducting an economic feasibility should serve as a reality check for each option or alternative.

28. Describe Technical Feasibility.

Technical feasibility focuses on the existing technical infrastructure needed to support the IT solution. It will help determine if the current infrastructure can support the alternative or if new technology (if available) were needed. It also considers whether the current IT staff has the skills and experience to support the proposed solution and if not can a vendor that has the skills and experience to develop and implement the application be contracted?

29. Describe Organizational Feasibility.

Organizational feasibility considers the impact on the organization. It focuses mainly on how people within the organization will adapt to this planned organizational change. How will people their jobs be impacted? Will they accept this change willingly? Will business be disrupted while the proposed solution is implemented?

30. What other types of feasibility issues should an organization consider?

Other feasibilities such as legal and ethical must also be considered.

31. How should the risk of each business case alternative be analyzed?

Risk should focus on:

- *Identification*—What can go wrong? What must go right?
- *Assessment*—What is the impact of each risk?
- *Response*—How can the organization avoid or minimize the risk?

32. 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 costs like:

- *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.

33. What is Total Benefits of Ownership?

Total Benefits of Ownership (TBO) must include all of the direct, on-going, and indirect benefits associated with each proposed alternative. The TBO should address the benefits of an alternative over the course of its useful life. Benefits can arise from:

- *Increasing high-value work*—For example, a salesperson may spend less time on paperwork and more time calling on customers.
- *Improving accuracy and efficiency*—For example, reducing errors, duplication, or the number of steps in a process.
- *Improving decision-making*—For example, providing timely and accurate information.
- *Improving customer service*—For example, new products or services, faster or more reliable service, convenience, etc.

34. What is the difference between tangible and intangible benefits? Give an example of each.

Tangible benefits associated with an IT project are those that are relatively easy to identify and quantify. They will usually arise from direct cost savings or avoided costs. Intangible benefits are benefits that may be easy to identify, but certainly more difficult to quantify or demonstrate. For example, a corporate telephone directory on an intranet not only improves communication, but can also cut paper, printing, and labor costs associated with creating and distributing a paper-based telephone book. The savings on printing a hard copy telephone book are tangible benefits. The improvement in communication is an example of an intangible benefit. It is hard to know in some common metric the worth of being able to have an accurate, up-to-date company directory that is on line, searchable and perhaps linked to one's telephone or email.

35. What are some ways of quantifying intangible benefits?

One way to quantify intangible benefits is to link them directly to tangible

benefits, which can be linked to efficiency gains. Another way to quantify intangible benefits is to estimate the level of service. For example, one could determine how much someone is willing to pay for a particular service or compare prices of products or services that have or do not have a particular feature.

36. Describe the payback method. What are some advantages and disadvantages of this method?

Payback is a method of analyzing the value of a project by determining how long it takes to recover the initial investment.

Payback Period = Initial Investment/ Net Cash Flows

Its advantages include ease of calculation, understanding and the fact that alternatives can be compared for risk as a function of how long it takes to recoup investment (longer is usually riskier). Its disadvantages include the fact that it ignores cash flows beyond the payback period and it ignores the time value of money.

37. Describe the breakeven method. What are some advantages and disadvantages of this method?

The breakeven method determines when the project recoups its original investment and thus begins to return positive net benefit. It is particularly useful when returns can be calculated on a per unit basis.

Breakeven Point = Initial Investment/Net Profit Margin

Its advantage includes ease of calculation and the ability to compare project risk (higher breakeven points are usually more risky). Its disadvantages includes the fact that it does not address units produced after the breakeven point and does not account for the time value of money.

38. Describe the ROI method. What are some advantages and disadvantages of this method?

ROI is a method of determining the percentage rate of return on a project. It is calculated as:

Project ROI = (Total expected benefits-total expected costs)/ total expected costs

In applying this method, an organization looks at the ROI and when choosing between competing (mutually exclusive) projects would choose the higher ROI (all other things being equal). If considering a project by itself, organizations often compare the ROI to a hurdle rate, which must be equaled or exceeded before accepting. The usefulness of the ROI method is contingent on the ability to define accurately the total costs and benefits associated with the project and the ability to link to benefits directly to the initial investment. One of the disadvantages of the method relates to the difficulty of measuring those two contingencies because of intervening variables' indirect influence. The advantage of the ROI method includes the clarification of the relationship between the

benefits and the costs of a project (ROI increases as benefits increase or costs decrease).

39. Describe the NPV method. What are some advantages and disadvantages of this method?

The NPV method focuses on the time value of money.

A project's NPV is equal to the sum of all of the future net cash flows that derive from the project, discounted by the firm's required rate of return, minus the initial investment.

The rule for applying NPV is to take the higher NPV when considering mutually exclusive projects and to accept only positive value NPV projects when considering stand-alone projects. The advantage of this method is that it takes into account the time value of money and also all relevant cash flows and when they are received. The disadvantage of the NPV method includes the fact that as with all methodologies, accurately estimating future cash flows can be difficult. The choice of the appropriate discount rate is also controversial at times.

40. **What effect does increasing the discount rate have on a project's NPV?**

Increasing the discount rate will decrease the project NPV since it is found in the denominator of the NPV formula.

41. What are the advantages of using a scoring model when comparing several project alternatives? Any disadvantages?

The advantages of using a scoring model to compare several projects include the ability to combine both qualitative and quantitative variables (leading to a quantification of intangible benefits) and the transcending of the short run bias of most financial models. The ability to rank and weight the impact value of multiple criteria may be either an advantage or a disadvantage if there is disagreement as to the appropriate weights and/or selection criteria. The disadvantage is that the outcome of a scoring model is heavily influenced by subjective judgments.

42. What is an IT project portfolio?

An IT portfolio is a set of multiple projects that an organization may undertake. These projects may vary significantly in their levels of risk, technological complexity, size, and strategic intent.

43. **Why shouldn't an organization always take on less challenging projects?**

Choosing only low risk projects may disable the strategic climb of a company due to stagnation in the organization. If all projects are correlated, these projects may not always lead to a low risk portfolio.

44. 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)

45. Describe the Balanced Scorecard approach.

The Balanced Scorecard approach helps balance traditional financial measures with operational metrics across four different perspectives:

- finance
- customer satisfaction
- internal business processes
- the organization's ability to innovate and learn

An organization that utilizes the Balanced Scorecard approach must create a set of measurements, or key performance indicators, for each of the perspectives. In turn, these measures are used to create a report or scorecard for the organization that allows management to track, or keep score, of the organization's performance. The four perspectives provide a balanced approach in terms of tangible and intangible benefits and long and short-term objectives, as well as how each perspective's desired outcomes and drivers impact the other perspectives.

46. Describe the financial perspective of the Balanced Scorecard approach.

The Balanced Scorecard approach encourages managers to consider measures other than traditional financial measures. It provides a means for linking financial performance with customer focused-initiatives, internal operations and investment in employees and the infrastructure to support their performance. One new financial measure that represents the Balanced Scorecard financial perspective is the Economic Value Added (EVA). EVA is a measurement tool to determine if an organization is earning more than its true cost of capital.

47. Describe the customer perspective of the Balanced Scorecard approach.

The customer perspective of the Balanced Scorecard approach focuses on how its customers perceive an organization's performance. Customer-based measurements of satisfaction level with respect to products and services can be linked to financial rewards.

48. Describe the internal process perspective of the Balanced Scorecard approach.

The internal process perspective of the Balanced Scorecard approach focuses on the processes that an organization must excel at to attract and retain customers or satisfy stakeholders. Customer satisfaction can be achieved through improved operational activities by the organization, which in turn leads to improved financial performance. Therefore, internal-based measurements should focus on the efficiency and effectiveness of the organization's processes.

49. Describe the innovation and learning perspective of the Balanced Scorecard

approach.

The Balanced Scorecard approach gives considerable support to the importance of investing in the future by investing in people. It makes investing in human infrastructure at least as important as investing in technical and physical infrastructures. Measures for the innovation and learning perspective may include training, certifications and employee satisfaction and retention.

50. How does the concept of MOV support the Balanced Scorecard approach?

The concept of MOV can support the Balanced Scorecard approach by developing the MOV in such a way as to measure the projects success in terms of the four perspectives of the Balanced Scorecard. For example instead of settling for some particular ROI or having a project's NPV be positive, the MOV might require the calculation of the EVA. Instead of just naming the project team and their current skill sets, the MOV might include in its goals the upgrading of team personnel skills through an included training program.

Essay Questions

1. Define an IT project methodology and describe its phases.
pages 30-31

2. What is the purpose of a project charter?
page 33

3. Define, compare and contrast project management processes and project-oriented processes.
page 36

4. Describe at least four reasons that the text gives for undertaking an IT project.
page 38

5. What is the purpose of a Business Case and what are the characteristics of a good Business Case?
page 38

6. What is Measurable Organizational Value (MOV) and what are the four major characteristics of a good MOV?
page 39-40

7. The text discusses numerous aspects of feasibility. Name and define three of them.
Page 46

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?
pages 48-49

9. Described the Balanced Scorecard Approach and list at least three significant reasons why it can fail as an analysis tool.
Pages 54-56

10. What are the three infrastructures that are needed to support the IT project? Describe the components of each of the infrastructures.
pages 36-37