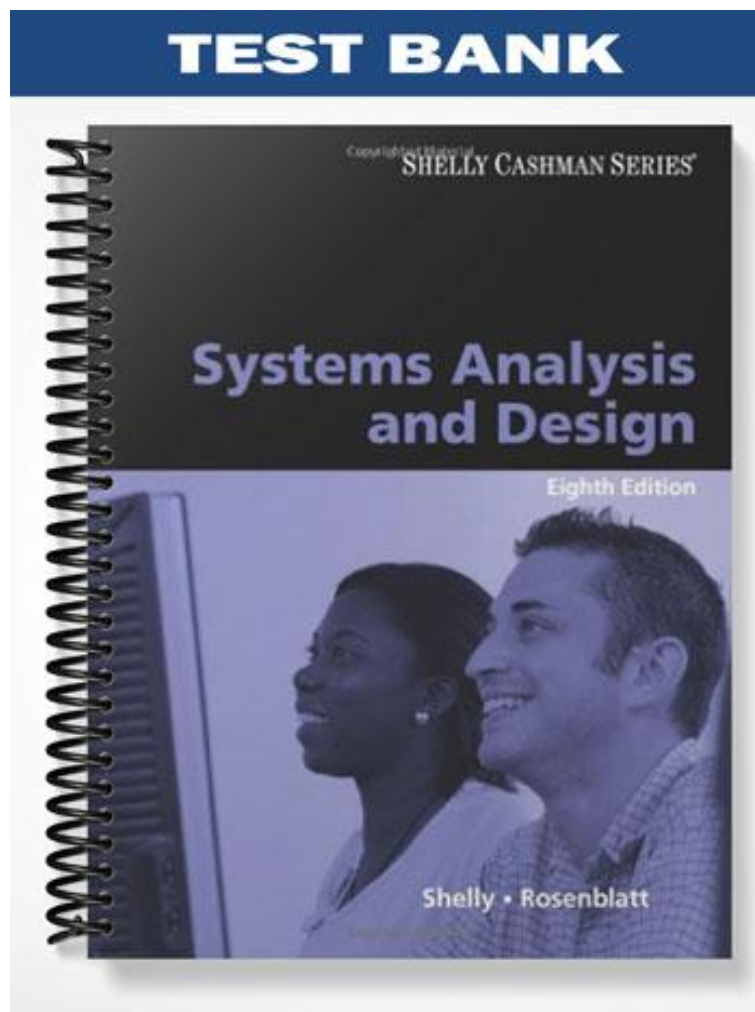


# TEST BANK



## Chapter 2 – Analyzing the Business Case

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### MULTIPLE CHOICE

1. Systems development typically starts with a \_\_\_\_.
- feasibility study, followed by a systems request, which includes a preliminary investigation
  - systems request, followed by a preliminary investigation, which includes a feasibility study
  - preliminary investigation, followed by a feasibility study, which includes a systems request
  - feasibility study, followed by a preliminary investigation, which includes a systems request

ANS: B                      PTS: 1                      REF: 48

2. \_\_\_\_ planning is the process of identifying long-term organizational goals, strategies, and resources.
- Opportunity
  - Preliminary
  - Strategic
  - Vertical

ANS: C                      PTS: 1                      REF: 50

3. During strategic planning, top managers ask a series of questions that is called a(n) \_\_\_\_ analysis because it examines a company's strengths, weaknesses, opportunities, and threats.
- CRM
  - TCO
  - JIT
  - SWOT

ANS: D                      PTS: 1                      REF: 50

4. Strategic planning looks beyond day-to-day activities and focuses on a horizon that is \_\_\_\_ years in the future.
- 3
  - 5
  - 10
  - any of the above

ANS: D                      PTS: 1                      REF: 50

5. \_\_\_\_ limitations result when a system that was designed for a specific hardware configuration becomes obsolete when new hardware is introduced.
- Mission
  - Relationship
  - Feasibility
  - Performance

ANS: D                      PTS: 1                      REF: 57

6. Hardware-based security controls include \_\_\_\_
- passwords
  - various levels of user access
  - coding data
  - none of the above

ANS: D                      PTS: 1                      REF: 57

7. \_\_\_\_ components can provide automated response to sales inquiries, Web-based order processing, and online inventory tracking.
- Mission statement
  - Customer relationship management (CRM)
  - Feasibility study

d. Total cost of ownership (TCO)

ANS: B                      PTS: 1                      REF: 60

8. Electronic data interchange (EDI) enables \_\_\_\_ inventory systems, which rely on computer-to-computer data exchange to minimize unnecessary inventory.

- a. CRM
- b. TCO
- c. JIT
- d. RFID

ANS: C                      PTS: 1                      REF: 60

9. Many companies implement \_\_\_\_ systems that integrate all customer-related events and transactions.

- a. CRM
- b. TCO
- c. JIT
- d. RFID

ANS: A                      PTS: 1                      REF: 60

10. A systems request form should *not* \_\_\_\_.

- a. have complex instructions
- b. be easy to understand
- c. include enough space for all required information
- d. indicate what supporting documents are needed

ANS: A                      PTS: 1                      REF: 62

11. When a systems request form is received, a systems analyst or IT manager examines it to determine what IT resources (including \_\_\_\_ ) are required for the preliminary investigation.

- a. staff
- b. time
- c. budget funding
- d. either a or b

ANS: D                      PTS: 1                      REF: 62

12. When evaluating systems requests, all of the following are disadvantages of a systems review committee *except* \_\_\_\_.

- a. action on requests must wait until the committee meets
- b. one person's bias is more likely to affect the decisions
- c. members might favor projects requested by their own departments
- d. internal political differences could delay important decisions

ANS: B                      PTS: 1                      REF: 63



13. Of the measures of feasibility in the accompanying figure, \_\_\_ considers questions such as “Does management support the project?” and “Will the new system require training for users?”
- schedule feasibility
  - technical feasibility
  - economic feasibility
  - operational feasibility

ANS: D                      PTS: 1                      REF: 64

14. Of the measures of feasibility in the accompanying figure, \_\_\_ considers points such as “Does the proposed platform have sufficient capacity for future needs?” and “Will the hardware and software environment be reliable?”
- schedule feasibility
  - technical feasibility
  - economic feasibility
  - operational feasibility

ANS: B                      PTS: 1                      REF: 64-65

15. Of the measures of feasibility in the accompanying figure, \_\_\_ assesses tangible and intangible benefits to the company in addition to costs.
- schedule feasibility
  - technical feasibility
  - economic feasibility
  - operational feasibility

ANS: C                      PTS: 1                      REF: 65

16. Of the measures of feasibility in the accompanying figure, issues that relate to \_\_\_ include “Has management established a firm timetable for the project?” and “Will a project manager be appointed?”

- a. schedule feasibility
- b. technical feasibility
- c. economic feasibility
- d. operational feasibility

ANS: A                      PTS: 1                      REF: 66

17. A feasibility study includes tests for \_\_\_\_ feasibility, which means that a proposed system will be used effectively after it has been developed.

- a. operational
- b. technical
- c. schedule
- d. economic

ANS: A                      PTS: 1                      REF: 64

18. A feasibility study includes tests for \_\_\_\_ feasibility, which refers to the practical resources needed to develop, purchase, install, or operate the system.

- a. operational
- b. technical
- c. schedule
- d. economic

ANS: B                      PTS: 1                      REF: 64

19. The estimated costs of a proposed system usually are considered the \_\_\_\_, which includes ongoing support and maintenance costs, as well as acquisition costs.

- a. CRM
- b. TCO
- c. JIT
- d. RFID

ANS: B                      PTS: 1                      REF: 65

20. A feasibility study includes tests for \_\_\_\_ feasibility, which means that the projected benefits of the proposed system outweigh the estimated costs.

- a. economic
- b. schedule
- c. operational
- d. technical

ANS: A                      PTS: 1                      REF: 65

21. Examples of tangible benefits include all of the following *except* a(n) \_\_\_\_.

- a. user-friendly system that improves employee job satisfaction
- b. new scheduling system that reduces overtime
- c. online package tracking system that decreases the need for clerical staff
- d. sophisticated inventory control system that cuts excess inventory

ANS: A                      PTS: 1                      REF: 65

22. Examples of intangible benefits include all of the following *except* a(n) \_\_\_\_.

- a. user-friendly system that improves employee job satisfaction
- b. sales tracking system that supplies better information for marketing decisions
- c. new Web site that enhances the company's image
- d. online package tracking system that decreases the need for clerical staff

ANS: D                      PTS: 1                      REF: 65

23. When setting priorities for systems requests, the highest priority goes to projects that provide the \_\_\_\_.

- a. least benefit, at the highest cost, in the longest period of time
- b. least benefit, at the lowest cost, in the longest period of time
- c. greatest benefit, at the highest cost, in the shortest period of time
- d. greatest benefit, at the lowest cost, in the shortest period of time

ANS: D                      PTS: 1                      REF: 66

24. When assessing priorities for systems requests, a systems analyst should look for high scores in all of the following *except* \_\_\_\_.
- a. Will the proposed system serve customers better?
  - b. Will the proposed system reduce costs?
  - c. Will the proposed system serve the organization better?
  - d. Will the proposed system decrease revenue for the company?

ANS: D                      PTS: 1                      REF: 67

25. \_\_\_\_ is an example of a discretionary project.
- a. Creating a new report for a user
  - b. Adding a report required by a new federal law
  - c. Including annual updates to payroll and tax percentages
  - d. All of the above

ANS: A                      PTS: 1                      REF: 67

26. Projects where management has a choice in implementing them are called \_\_\_\_ projects.
- a. discretionary
  - b. nondiscretionary
  - c. appended
  - d. concatenated

ANS: A                      PTS: 1                      REF: 67

27. Projects where management has no choice in implementing them are called \_\_\_\_ projects.
- a. discretionary
  - b. nondiscretionary
  - c. appended
  - d. concatenated

ANS: B                      PTS: 1                      REF: 67

28. A systems analyst conducts a(n) \_\_\_\_ investigation to study the systems request and recommend specific action.
- a. preliminary
  - b. appendix
  - c. systems
  - d. transitional

ANS: A                      PTS: 1                      REF: 68

29. A popular technique for investigating causes and effects is called a(n) \_\_\_\_ diagram, which is an analysis tool that represents the possible causes of a problem as a graphical outline.
- a. wishbone
  - b. fishbone
  - c. jawbone
  - d. crossbones

ANS: B                      PTS: 1                      REF: 70

30. When using a \_\_\_\_ diagram to investigate causes of a problem, an analyst first states the problem and then draws a main bone with sub-bones that represent possible causes of the problem.
- a. wishbone
  - b. fishbone
  - c. jawbone
  - d. crossbones

ANS: B                      PTS: 1                      REF: 70

31. To avoid the problem of project creep, \_\_\_\_.
- a. define project scope as vaguely as possible
  - b. leave project scope undefined
  - c. define project scope as clearly as possible
  - d. expand the focus beyond the problem at hand

ANS: C                      PTS: 1                      REF: 71

32. Determining the project \_\_\_\_ means to define the boundaries, or extent, of a project — being as specific as possible.
- a. index
  - b. matrix
  - c. scope
  - d. estimation

ANS: C                      PTS: 1                      REF: 71

33. Projects with very general scope definitions are at risk of expanding gradually, without specific authorization, in a process called project \_\_\_\_.
- a. dilation
  - b. creep
  - c. expansion
  - d. drift

ANS: B                      PTS: 1                      REF: 71

34. A(n) \_\_\_\_ is a requirement or condition that a system must satisfy or an outcome that a system must achieve.
- a. condition
  - b. constraint
  - c. impediment
  - d. obstacle

ANS: B                      PTS: 1                      REF: 71

35. The primary method of obtaining information during the preliminary investigation is to \_\_\_\_.
- a. analyze organization charts
  - b. conduct interviews
  - c. review documentation
  - d. observe operations

ANS: B                      PTS: 1                      REF: 73

36. In sequence, the interviewing process involves a series of steps: \_\_\_\_, conduct the interview, document the interview, and evaluate the interview.
- a. determine the people to interview, establish objectives for the interview, develop interview questions, prepare for the interview
  - b. establish objectives for the interview, develop interview questions, prepare for the interview, determine the people to interview
  - c. develop interview questions, prepare for the interview, determine the people to interview, establish objectives for the interview
  - d. prepare for the interview, determine the people to interview, establish objectives for the interview, develop interview questions

ANS: A                      PTS: 1                      REF: 73|74

37. A survey is \_\_\_\_, generally takes less time, and can involve a broad cross-section of people.
- a. more flexible than a series of interviews, and it is less expensive
  - b. more flexible than a series of interviews, but it is more expensive
  - c. not as flexible as a series of interviews, but it is less expensive
  - d. not as flexible as a series of interviews, and it is more expensive

ANS: C                      PTS: 1                      REF: 74

38. A systems analyst should provide \_\_\_\_ so managers can understand the full cost impact and timetable.
- a. time figures for the next development phase
  - b. cost figures for the next development phase
  - c. an estimate for the overall project
  - d. all of the above

ANS: D                    PTS: 1                    REF: 75

39. In a preliminary investigation report, the \_\_\_\_ contain(s) a brief description of the system, the name of the person or group performing the investigation, and the name of the person or group who initiated the investigation.
- a. introduction
  - b. systems request summary
  - c. expected benefits
  - d. time and costs estimates

ANS: A                    PTS: 1                    REF: 76

40. In the preliminary investigation report, the \_\_\_\_ section contains the results of the preliminary investigation, including a description of the project's scope, constraints, and feasibility.
- a. appendix
  - b. introduction
  - c. case for action
  - d. findings

ANS: D                    PTS: 1                    REF: 76

## MULTIPLE RESPONSE

### Modified Multiple Choice

1. A SWOT analysis contributes to the strategic planning process by identifying \_\_\_\_ resources.
- a. technical
  - b. human
  - c. financial
  - d. logistical

ANS: A, B, C            PTS: 1                    REF: 50

2. A common reason for systems requests is \_\_\_\_.
- a. improved services
  - b. weaker controls
  - c. better performance
  - d. reduced cost

ANS: A, C, D            PTS: 1                    REF: 56

3. \_\_\_\_ affect(s) IT systems projects.
- a. Technology
  - b. Competitors
  - c. Managers
  - d. Suppliers

ANS: A, B, D            PTS: 1                    REF: 59

4. \_\_\_\_ is/are an internal factor that affects IT systems projects.
- a. The economy
  - b. User requests
  - c. Strategic plans
  - d. Existing systems and data

ANS: B, C, D            PTS: 1                    REF: 59

5. By questioning users about additional capabilities they would like to have, instead of focusing on difficulties, a systems analyst \_\_\_\_.
- a. leaves project scope undefined
  - b. gets a better understanding of operations
  - c. highlights ways to improve the user's job
  - d. builds better, more positive relationships with users

ANS: B, C, D            PTS: 1                    REF: 69

## MODIFIED TRUE/FALSE



1. It is easier to assign dollar values to intangible benefits. \_\_\_\_\_  
ANS: F, tangible  
PTS: 1                      REF: 67
2. A Gantt chart is drawn as a vertical bar graph; arranged in descending order, so the team can focus on the most important ones, the bars represent various causes of a problem.  
\_\_\_\_\_  
ANS: F, Pareto  
PTS: 1                      REF: 71
3. Regardless of the type, all constraints should be identified as late as possible.  
\_\_\_\_\_  
ANS: F, early  
PTS: 1                      REF: 72
4. A clear definition of project scope and constraints promotes misunderstandings that arise where managers assume that the system will have a certain feature or support for a project, but later find that the feature is not included. \_\_\_\_\_  
ANS: F, avoids  
PTS: 1                      REF: 72
5. In a preliminary investigation report, the case for action section includes a summary of the project request and a specific recommendation. \_\_\_\_\_  
ANS: T                                      PTS: 1                      REF: 76

#### TRUE/FALSE

1. A strong business case suggests that a company should pursue other options, above the alternative, because it would be in the firm's best interest to do so.  
ANS: F                      PTS: 1                      REF: 48
2. A company's mission statement is unrelated to its major goals, shorter-term objectives, and day-to-day business operations.  
ANS: F                      PTS: 1                      REF: 51
3. Management leadership and information technology are unconnected, and no significant changes have occurred in either area.  
ANS: F                      PTS: 1                      REF: 53
4. Systems requests seldom are aimed at improving service to customers or users within a company.

ANS: F                    PTS: 1                    REF: 56

5. Data entry controls should be excessive without being effective.

ANS: F                    PTS: 1                    REF: 57

6. Internal and external factors affect every business decision that a company makes, and IT systems are no exception.

ANS: T                    PTS: 1                    REF: 58

7. A strategic plan that stresses technology tends to create an unfavorable climate for IT projects that extends throughout an organization.

ANS: F                    PTS: 1                    REF: 59

8. As users rely more heavily on information systems to perform their jobs, they are likely to request even more IT services and support.

ANS: T                    PTS: 1                    REF: 59

9. Information systems that interact with customers usually receive low priority.

ANS: F                    PTS: 1                    REF: 60

10. Competition drives many information systems decisions.

ANS: T                    PTS: 1                    REF: 60

11. Economic activity has little influence on corporate information management.

ANS: F                    PTS: 1                    REF: 60

12. Most large companies rely on one person to evaluate systems requests instead of a committee.

ANS: F                    PTS: 1                    REF: 63

13. If only one person has the necessary IT skills and experience to evaluate systems requests, that person should consult closely with users and managers throughout the company to ensure that business and operational needs are considered carefully.

ANS: T                    PTS: 1                    REF: 63

14. Even if users have difficulty with a new system, it still will produce the expected benefits.

ANS: F                    PTS: 1                    REF: 64

15. When assessing schedule feasibility, a systems analyst must consider the interaction between time and costs.

ANS: T                    PTS: 1                    REF: 66

16. The first step in evaluating feasibility is to accept and include all systems requests, even those that are not feasible.
- ANS: F                      PTS: 1                      REF: 66
17. Feasibility analysis is an ongoing task that must be performed throughout the systems development process.
- ANS: T                      PTS: 1                      REF: 66
18. Whenever possible, a systems analyst should evaluate a proposed project based on tangible costs and benefits that represent actual (or approximate) dollar values.
- ANS: T                      PTS: 1                      REF: 67
19. Few nondiscretionary projects are predictable.
- ANS: F                      PTS: 1                      REF: 67
20. Before beginning a preliminary investigation, a memo or an e-mail message should let people know about the investigation and explain the systems analyst's role.
- ANS: T                      PTS: 1                      REF: 68
21. A systems project seldom produces significant changes in company operations.
- ANS: F                      PTS: 1                      REF: 68
22. When interacting with users, a systems analyst should focus on difficulties instead of questioning users about additional capability they would like to have.
- ANS: F                      PTS: 1                      REF: 69
23. Often a change in one system has an unexpected effect on another system.
- ANS: T                      PTS: 1                      REF: 70
24. The purpose of an interview, and of the preliminary investigation itself, is to convince others that a project is justified, not to uncover facts.
- ANS: F                      PTS: 1                      REF: 74
25. The format of a preliminary investigation report is the same from one company to another.
- ANS: F                      PTS: 1                      REF: 76

## COMPLETION

1. The term \_\_\_\_\_ refers to the reasons, or justification, for a systems development proposal.

ANS: business case

PTS: 1 REF: 48

2. A(n) \_\_\_\_\_ describes a company for its stakeholders and briefly states the company's overall purpose, products, services, and values.

ANS: mission statement

PTS: 1 REF: 51

3. \_\_\_\_\_ include anyone affected by a company's operations, such as customers, employees, suppliers, stockholders, and members of the community.

ANS: Stakeholders

PTS: 1 REF: 51

4. After composing a mission statement, a company identifies a set of \_\_\_\_\_ that will accomplish the mission.

ANS: goals

PTS: 1 REF: 53

5. To achieve its goals, a company develops a list of shorter-term \_\_\_\_\_, which translate into day-to-day business operations.

ANS: objectives

PTS: 1 REF: 53

6. \_\_\_\_\_ are vital objectives that must be achieved for an enterprise to fulfill its mission.

ANS: Critical success factors

PTS: 1 REF: 53

7. At some point in the systems development process, a(n) \_\_\_\_\_ is presented, which is a summary of the project request and a specific recommendation.

ANS: case for action

PTS: 1 REF: 76

8. The starting point for a systems development project is called a(n) \_\_\_\_\_, which is a formal way of asking for IT support.

ANS: systems request

PTS: 1 REF: 56

9. Some common security controls include passwords, various levels of user access, and \_\_\_\_\_, or coding of data to keep it safe from unauthorized users.

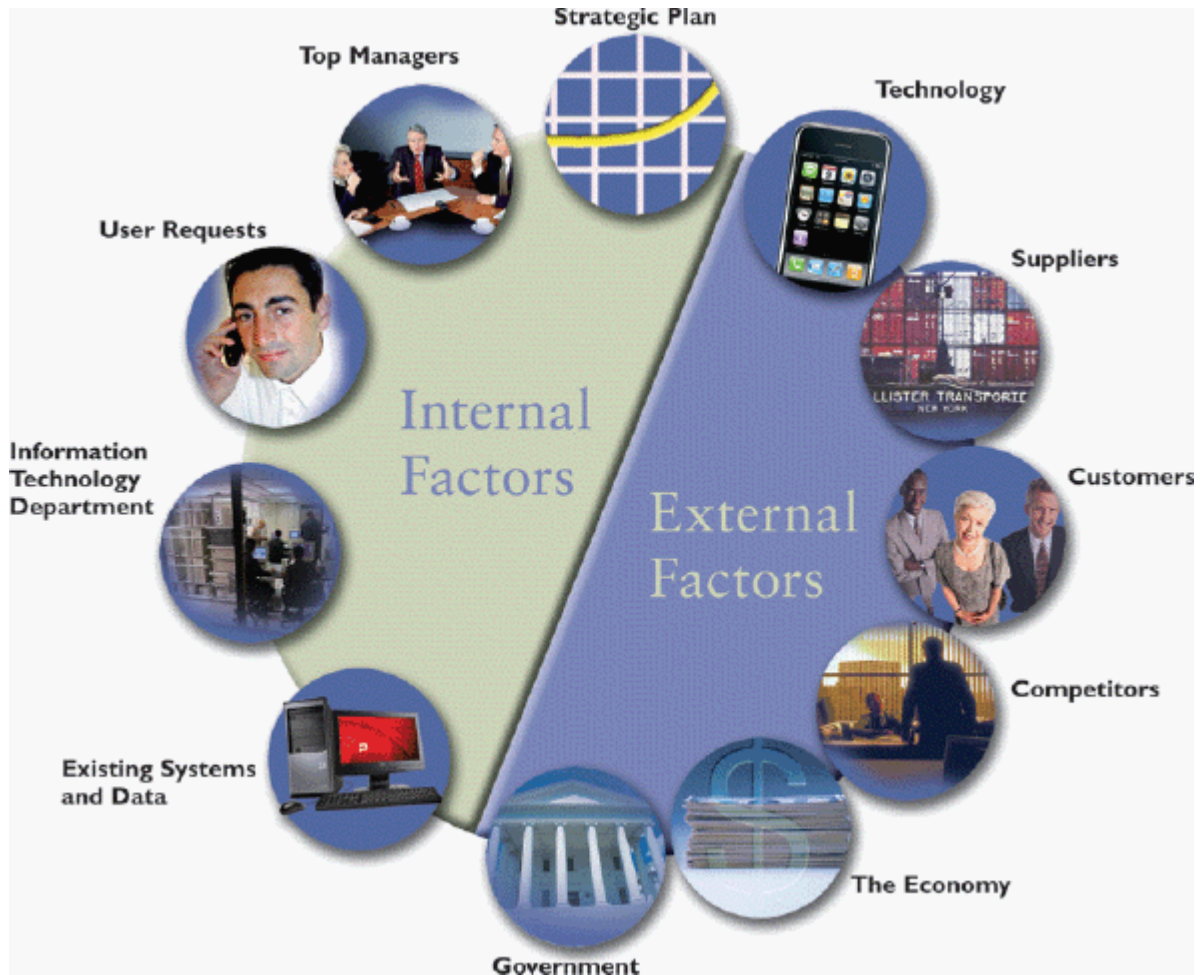
ANS: encryption

PTS: 1 REF: 57

10. Hardware-based security controls include \_\_\_\_\_ that can identify a person by a retina scan or by mapping a facial pattern.

ANS: biometric devices

PTS: 1 REF: 57



11. In the accompanying figure showing factors that affect IT systems projects, a company's \_\_\_\_\_ sets the overall direction for the firm and has an important impact.

ANS: strategic plan

PTS: 1 REF: 59

12. In the accompanying figure showing factors that affect IT systems projects, many systems project requests come from the \_\_\_\_\_, which often makes recommendations based on its knowledge of business operations and technology trends.

ANS:  
IT department

information technology department

PTS: 1 REF: 59

13. In the accompanying figure showing factors that affect IT systems projects, changing \_\_\_\_\_ is a major force affecting business and society in general.

ANS: technology

PTS: 1 REF: 59

14. In the accompanying figure showing factors that affect IT systems projects, the growth of electronic data interchange (EDI) has made relationships with \_\_\_\_\_ critically important.

ANS: suppliers

PTS: 1 REF: 60

15. Many companies call the group of key managers and users responsible for evaluating systems requests a(n) \_\_\_\_\_.

ANS:  
systems review committee  
computer resources committee

PTS: 1 REF: 62

16. A systems request must pass several tests, called a(n) \_\_\_\_\_, to see whether it is worthwhile to proceed further.

ANS: feasibility study

PTS: 1 REF: 63

17. \_\_\_\_\_ are benefits that can be measured in dollars, resulting from a decrease in expenses, an increase in revenues, or both.

ANS: Tangible benefits

PTS: 1 REF: 65

18. \_\_\_\_\_ are advantages that are difficult to measure in dollars but are important to a company.

ANS: Intangible benefits

PTS: 1 REF: 65

19. A feasibility study includes tests for \_\_\_\_\_, which means that a project can be implemented in an acceptable time frame.

ANS: schedule feasibility

PTS: 1                      REF: 66

20. A(n) \_\_\_\_\_ is included in the report to management if you need to attach supporting information (e.g., the interviews you conducted, the documentation you reviewed).

ANS: appendix

PTS: 1                      REF: 76

## MATCHING

*Identify the letter of the choice that best matches the phrase or definition.*

- |                         |                              |
|-------------------------|------------------------------|
| a. schedule feasibility | f. systems request           |
| b. EPC                  | g. control                   |
| c. JIT                  | h. preliminary investigation |
| d. systems development  | i. organization chart        |
| e. EPOD                 | j. case for action           |

1. Today, it is much more team-oriented than in the past.
2. This might propose enhancements for an existing system, the correction of problems, or the development of an entirely new information system.
3. A system needs this to ensure that data is secure and accurate.
4. Technology that is expected to overshadow bar code technology in the future.
5. System whose purpose is to provide the right product at the right place at the right time.
6. With this technology, a supplier uses RFID tags on each crate, case, or shipping unit to create a digital shipping list.
7. When assessing this, a systems analyst must consider the interaction between time and costs.
8. Its end product is a report to management.
9. Can be obtained during fact-finding to understand how a department functions.
10. The part of a preliminary investigation report that summarizes the project request and makes a specific recommendation.

- |            |        |         |
|------------|--------|---------|
| 1. ANS: D  | PTS: 1 | REF: 53 |
| 2. ANS: F  | PTS: 1 | REF: 56 |
| 3. ANS: G  | PTS: 1 | REF: 57 |
| 4. ANS: B  | PTS: 1 | REF: 59 |
| 5. ANS: C  | PTS: 1 | REF: 60 |
| 6. ANS: E  | PTS: 1 | REF: 60 |
| 7. ANS: A  | PTS: 1 | REF: 66 |
| 8. ANS: H  | PTS: 1 | REF: 68 |
| 9. ANS: I  | PTS: 1 | REF: 73 |
| 10. ANS: J | PTS: 1 | REF: 76 |

## ESSAY

1. Discuss in detail at least four of the main reasons for systems requests, including examples where appropriate.

ANS:

The main reasons for systems requests are improved service to customers, support for new products and services, better performance, more information, stronger controls, and reduced cost.

Improved service: Systems requests often are aimed at improving service to customers or users within the company. Allowing mutual fund investors to check their account balances on a Web site, storing data on rental car customer preferences, or creating an online college registration system are examples that provide valuable services and increased customer satisfaction.

Support for new products and services: New products and services often require new types or levels of IT support. For example, a software vendor might offer an automatic upgrade service for subscribers; or a package delivery company might add a special service for RFID-tagged shipments. In situations like these, it is most likely that additional IT support will be required. At the other end of the spectrum, product obsolescence also can be an important factor in IT planning. As new products enter the marketplace, vendors often announce that they will no longer provide support for older versions. A lack of vendor support would be an important consideration in deciding whether or not to upgrade.

Better performance: The current system might not meet performance requirements. For example, it might respond slowly to data inquiries at certain times, or it might be unable to support company growth. Performance limitations also result when a system that was designed for a specific hardware configuration becomes obsolete when new hardware is introduced.

More information: The system might produce information that is insufficient, incomplete, or unable to support the company's changing information needs. For example, a system that tracks customer orders might not be capable of analyzing and predicting marketing trends. In the face of intense competition and rapid product development cycles, managers need the best possible information to make major decisions on planning, designing, and marketing new products and services.

Stronger controls: A system must have effective controls to ensure that data is secure and accurate. Some common security controls include passwords, various levels of user access, and encryption, or coding of data to keep it safe from unauthorized users. Hardware-based security controls include biometric devices that can identify a person by a retina scan or by mapping a facial pattern. A new biometric tool scans hands, rather than faces. The technology uses infrared scanners that create images with thousands of measurements of hand and finger characteristics. In addition to being secure, data also must be accurate. Controls should minimize data entry errors whenever possible. For example, if a user enters an invalid customer number, the order processing system should reject the entry immediately and prompt the user to enter a valid number. Data entry controls must be effective without being excessive. If a system requires users to confirm every item with an "Are you sure? Y/N" message, internal users and customers might complain that the system is not user-friendly.

Reduced cost: The current system could be expensive to operate or maintain as a result of technical problems, design weaknesses, or the changing demands of the business. It might be possible to adapt the system to newer technology or upgrade it. On the other hand, cost-benefit analysis might show that a new system would be more cost effective and provide better support for long-term objectives.

PTS: 1                      REF: 56-58                      TOP: Critical Thinking

2. Describe in detail at least four of the internal factors that affect the business decisions a company makes.

ANS:

Internal factors include the strategic plan, top managers, user requests, information technology department, and existing systems and data.



**Strategic plan:** A company's strategic plan sets the overall direction for the firm and has an important impact on IT projects. Company goals and objectives that need IT support will generate systems requests and influence IT priorities. A strategic plan that stresses technology tends to create a favorable climate for IT projects that extends throughout the organization.

**Top managers:** Directives from top managers are a prime source of large-scale systems projects. Those directives often result from strategic business decisions that require new IT systems, more information for decision making, or better support for mission-critical information systems.

**User requests:** As users rely more heavily on information systems to perform their jobs, they are likely to request even more IT services and support. For example, sales reps might request improvements to the company's Web site, a more powerful sales analysis report, a network to link all sales locations, or an online system that allows customers to obtain the status of their orders instantly. Or, users might not be satisfied with the current system because it is difficult to learn or lacks flexibility. They might want information systems support for business requirements that did not even exist when the system was developed.

**Information technology department:** Many systems project requests come from the IT department. IT staff members often make recommendations based on their knowledge of business operations and technology trends. IT proposals might be strictly technical matters, such as replacement of certain network components, or suggestions might be more business oriented, such as proposing a new reporting or data collection system.

**Existing systems and data:** Errors or problems in existing systems can trigger requests for systems projects. When dealing with older systems, analysts sometimes spend too much time reacting to day-to-day problems without looking at underlying causes. This approach can turn an information system into a patchwork of corrections and changes that cannot support the company's overall business needs. This problem typically occurs with legacy systems, which are older systems that are less technologically advanced. When migrating to a new system, IT planners must plan the conversion of existing data.

PTS: 1                      REF: 59                      TOP: Critical Thinking

3. Outline the steps typically conducted during the preliminary investigation.

ANS:

During the preliminary investigation, a systems analyst typically follows a series of steps. The exact procedure depends on the nature of the request, the size of the project, and the degree of urgency.

Step 1: Understand the problem or opportunity.

Step 2: Define the project scope and constraints.

Step 3: Perform fact-finding (analyze organizational charts, conduct interviews, review documentation, observe operations, conduct a user survey).

Step 4: Analyze project usability, cost, benefit, and schedule data.

Step 5: Evaluate feasibility (operational, technical, economic, schedule)

Step 6: Present results and case for action to management.

PTS: 1                      REF: 69                      TOP: Critical Thinking

## CASE

### Critical Thinking Questions

#### Case 1

As part of the annual report for the fiscal year just ended, Lara is working on a grid that summarizes the major decisions that the small business for which she works made during the year. As part of her review, she is identifying whether a decision was impacted by factors internal to the company, or external.

1. Lara has just finished writing a short blurb about the internal factors that impacted the major decisions made by the company last fiscal year. Which of the following factors does NOT appear on that list?
  - a. Users were not satisfied by the current tracking database because it was difficult to learn and lacked flexibility.
  - b. The bar code technology that they have always used to monitor the movement of their products from the factory floor to the retail checkout counter has begun to be replaced by RFID tags.
  - c. In-house database users wanted information systems support for new features that did not exist when the system was first developed five years earlier.
  - d. The current systems have, over time, become a patchwork of changes and corrections that cannot support the company's overall sales volume.

ANS:  
B

PTS: 1                      REF: 59                      TOP: Critical Thinking

2. Which of the following does not appear on Lara's list of external factors?
  - a. The economy experienced a period of expansion, requiring the company to respond with a scalable system that could handle the additional volume and growth.
  - b. Sales reps requested a more powerful sales analysis report.
  - c. The firm's closest competitor launched a new sales incentive with which Lara's firm needed to compete.
  - d. Congress instituted an Internet sales tax.

ANS:  
B

PTS: 1                      REF: 60                      TOP: Critical Thinking

### **Critical Thinking Questions**

#### **Case 2**

Sam is the analyst with the responsibility for assessing the economic feasibility of the new system that his team has been hired to develop for Widgets, Inc.

3. Which of the following is NOT an area in which Sam must estimate costs to determine TCO?
  - a. licenses
  - b. facility costs
  - c. cost of competitors' systems
  - d. equipment

ANS:  
C

PTS: 1                      REF: 65                      TOP: Critical Thinking

4. Sam's boss has asked for a quick list of the tangible benefits of the new system, because the client has expressed some concerns about the project and she wants to reassure him. Which of the following would NOT be on such a list as developed by Sam?
- a. The new system is more user-friendly, thus increasing employee job satisfaction.
  - b. The new scheduling system requires overtime.
  - c. The new inventory control feature cuts excess inventory and eliminates production delays.
  - d. The new online package tracking feature improves service and decreases the need for clerical staff.

ANS:

A

PTS: 1

REF: 65

TOP: Critical Thinking