ch05

Student: _____

1. In the systems development life cycle, which step immediately precedes implementation?
   A. Build
   B. Test
   C. Maintain
   D. Planning

2. In the systems development life cycle, which step immediately follows requirements analysis?
   A. Design
   B. Build
   C. Test
   D. Operate

3. MCL Corporation recently hired a consultant to design and implement a new information system. The consultant was trying to decide whether to discard the old system all at once and put the new system in its place, or to make the transition more gradual. Which step in the systems development life cycle is the consultant dealing with?
   A. Test
   B. Operations & maintenance
   C. Design
   D. Implementation

4. MCL Corporation recently hired a consultant to design and implement a new information system. The consultant was trying to decide whether to discard the old system all at once and put the new system in its place, or to make the transition more gradual. After making that choice, which of the following should the consultant do based on the steps in the systems development life cycle?
   A. Present MCL with an invoice.
   B. Teach MCL employees how the system works.
   C. Arrange for the system to be audited.
   D. Determine which level of the capability maturity model describes the system.

5.

   Robert is the president and CEO of Computer Solutions; the firm's main activity is installing enterprise resource planning software. When a client calls Robert, he does an "intake interview" where he assesses the client's needs and learns about their company. Robert tries to interview at least a dozen people at each client, including top management and mid- and lower-level employees.

   The interviews Robert conducts with his clients are an example of which stage of the systems development life cycle?

   A. Initiation / planning
   B. Requirements analysis
   C. Design
   D. Test

6.

Consider the following short case as you respond to the next question:

Robert is the president and CEO of Computer Solutions; the firm's main activity is installing enterprise resource planning software. When a client calls Robert, he does an "intake interview" where he assesses the client's needs and learns about their company. Robert tries to interview at least a dozen people at each client, including top management and mid- and lower-level employees.

What should Robert do immediately after he completes the interviews?

A. Determine the client's risk exposures and design appropriate internal controls.
B. Recommend the client purchase a specific ERP software package.
C. Start creating transaction, master and junction files on the client's network.
D. Test the current system.

7.

Robert is the president and CEO of Computer Solutions; the firm's main activity is installing enterprise resource planning software. When a client calls Robert, he does an "intake interview" where he assesses the client's needs and learns about their company. Robert tries to interview at least a dozen people at each client, including top management and mid- and lower-level employees.

In the preceding case, who would complete the first step in the systems development life cycle?

A. Robert
B. The client
C. Both Robert and the client
D. The SEC

8.

Robert is the president and CEO of Computer Solutions; the firm's main activity is installing enterprise resource planning software. When a client calls Robert, he does an "intake interview" where he assesses the client's needs and learns about their company. Robert tries to interview at least a dozen people at each client, including top management and mid- and lower-level employees.

Which of the following activities would serve the same purpose as intake interviews if Robert uses the systems development life cycle?

A. Employee surveys
B. Database specifications
C. Training simulations
D. A lecture and presentation

9.

Robert is the president and CEO of Computer Solutions; the firm's main activity is installing enterprise resource planning software. When a client calls Robert, he does an "intake interview" where he assesses the client's needs and learns about their company. Robert tries to interview at least a dozen people at each client, including top management and mid- and lower-level employees.

At what point would Robert be best equipped to submit a project budget to his client?

A. When he is hired
B. Immediately before the intake interview
C. After the intake interview
D. After the "build" phase of the systems development life cycle

10. Advantages of using the systems development life cycle include: (i) strong control, (ii) opportunity for user input, (iii) rigidity.
A. I and II only
B. I and III only
C. II and III only
D. I, II and III

11. Which of the following statements best represents a disadvantage of using the systems development life cycle?
A. It is the only methodology available for systems design projects.
B. Its steps should be completed in a very specific order.
C. It minimizes user involvement in the system.
D. All of the above are disadvantages of the SDLC.

12. Which of the following statements best represents an advantage of using the systems development life cycle?
A. It is less expensive than other systems development methodologies.
B. It requires the least amount of time.
C. It can help promote operating efficiency.
D. All of the above are advantages of the SDLC.

13. Fran was unhappy with her firm's transaction processing software. Which of the following tools would be most useful to her in making it better?
A. The capability maturity model
B. The accounting cycle
C. The systems development life cycle
D. COSO's internal control framework

14. Ethan was in charge of developing a web site that could be used to sell products and services to his company's clients. If he decides to use the systems development life cycle to structure his work, which of the following statements is most true?
A. He should be able to complete the task in no more than six months.
B. He should work alone.
C. It will be difficult for him to estimate the project's cost.
D. All of the above are true.

15. The systems development life cycle has often been criticized because:
A. It became obsolete when COSO published its internal control framework.
B. Its risks cannot be managed with the COSO framework.
C. Both A and B
D. Neither A nor B

16. One advantage of the systems development life cycle is its opportunity for user input. It therefore shares some commonalities with which elements of the COSO enterprise risk management framework?
    A. Internal environment and risk response
    B. Event identification and information and communication
    C. Event identification and risk response
    D. Internal environment and information and communication

17. Which of the following statements would you expect to read in a company memo advocating the use of the systems development life cycle to select general ledger software?
    A. There are ten steps in the accounting cycle.
    B. Using the SDLC can help ensure reliable financial reporting.
    C. Most accounting information systems have five generic parts.
    D. General ledger software assists more with bookkeeping than it does with accounting.

18. Which of the following statements would you expect to read in a company memo arguing against the use of the systems development life cycle as a form of internal control?
    A. The risks associated with the SDLC are unknown.
    B. The SDLC does not help achieve all four objectives of internal control.
    C. The SDLC is not recognized by COSO.
    D. The SDLC has no relationship to internal control.

19. Raul was leading a team charged with developing a new system for budgeting. The formation of the team indicates that which step of the SDLC has been completed?
    A. Initiation / planning
    B. Requirements analysis
    C. Design
    D. Build

20. Raul was leading a team charged with developing a new system for budgeting. Immediately after the team is formed, they should proceed with:
    A. Requirements analysis
    B. Design
    C. Build
    D. Test

21. Raul was leading a team charged with developing a new system for budgeting. If he decides to use the systems development life cycle:
    A. The project will fail, since the SDLC cannot be applied to the task.
    B. Forming the team is a result of the first step in the SDLC.
    C. The team must completely abandon any elements of the present budgeting system.
    D. The project will definitely be completed on time and within budget.

22. Raul was leading a team charged with developing a new system for budgeting. If he decides to use the systems development life cycle, which of the following questions would he most likely ask during its second step?
    A. Do we really need a new budgeting system?
    B. How many people should be on the team?
    C. What goals should the new budgeting system achieve?
    D. Should we use Excel or some other information technology tool?

23. Raul was leading a team charged with developing a new system for budgeting. Which of the following questions is best paired with the most appropriate phase of the systems development life cycle?
    A. Initiation / planning: Should we use Excel or some other information technology tool?
    B. Requirements analysis: Should we use Excel or some other information technology tool?
    C. Requirements analysis: What goals should the new budgeting system achieve?
    D. Initiation / planning: How many people should be on the team?

24. Raul was leading a team charged with developing a new system for budgeting. Which of the following questions is best paired with the most appropriate phase of the systems development life cycle?
    A. Initiation / planning: Do we really need a new budgeting system?
    B. Requirements analysis: Do we really need a new budgeting system?
    C. Design: How many people should be on the team?
    D. Operations and maintenance: How many people should be on the team?

25. Raul was leading a team charged with developing a new system for budgeting. At what point will the system be ready for the fifth step in the systems development life cycle?
    A. Never, since the SDLC cannot be used in this situation
    B. Immediately after the team is formed
    C. After the team has created Excel templates for the budgeting process
    D. One month before the system is implemented

26. Raul was leading a team charged with developing a new system for budgeting. He created Excel templates for the new budgeting process and presented them to the team during its first meeting. Which of the following statements is most true?
    A. Raul cannot use the systems development life cycle in this situation.
    B. If Raul wants to use the systems development life cycle, he should not have created Excel templates so soon.
    C. The systems development life cycle precludes the use of Excel, since all software must be created "from scratch."
    D. Both B and C are true.

27. All of the following are levels of the capability maturity model except:
    A. Analytical
    B. Repeatable
    C. Defined
    D. Managed

28. At what level of the capability maturity model are managers first involved?
    A. Chaotic
    B. Repeatable
    C. Defined
    D. Managed

29. Liam had developed a good process for safeguarding his company's information technology assets, but had not shared it with anyone else in the company. To move the process up one level in the capability maturity model, Liam should:
    A. Ensure the process actually uses information technology.
    B. Create a timeline with specific targets.
    C. Patent his idea.
    D. Verify his model against COSO's internal control framework.

30. Liam has developed a good process for safeguarding his company's information technology assets. He has talked about his methodology with some of his co-workers and has created a schedule for applying his process to various kinds of information technology assets. Using the capability maturity model, the process is best described as:
    A. Chaotic
    B. Repeatable
    C. Managed
    D. Optimized

31. Liam has developed a good process for safeguarding his company's information technology assets. He has talked about his methodology with some of his co-workers and has created a schedule for applying his process to various kinds of information technology assets. Which of the following phrases best indicates the process is repeatable, as the term is defined in the capability maturity model?
    A. A good process
    B. Talked with some of his co-workers
    C. Created a schedule
    D. Various kinds of information technology assets

32. Liam has developed a good process for safeguarding his company's information technology assets. He has completed the following actions with respect to the process: (i) talked about his methodology with some of his co-workers, (ii) created a schedule for applying his process to various kinds of information technology assets, (iii) explained how his process relates to similar processes in his company. Which of the following best pairs one of Liam's actions with a level of the capability maturity model?
    A. I, chaotic
    B. I, optimized
    C. III, defined
    D. None of the above, since the CMM cannot be applied in this situation.

33. Liam has developed a good process for safeguarding his company's information technology assets. He has completed the following actions with respect to the process: (i) talked about his methodology with some of his co-workers, (ii) created a schedule for applying his process to various kinds of information technology assets, (iii) explained how his process relates to similar processes in his company. Based on the capability maturity model, the process would best be described as:
    A. Repeatable
    B. Defined
    C. Managed
    D. Optimized

34. Liam has developed a good process for safeguarding his company's information technology assets. He has completed the following actions with respect to the process: (i) talked about his methodology with some of his co-workers, (ii) created a schedule for applying his process to various kinds of information technology assets, (iii) explained how his process relates to similar processes in his company. To move the process up one level in the capability maturity model, Liam should:
    A. Publish the details of his process in the company newsletter.
    B. Publish the details of his process in a practitioner journal article.
    C. Establish a budget for the process.
    D. Relate it to the four purposes of internal control.

35. ELH Corporation's process for buying inventory is well defined; the process also has metrics that establish goals for the process. Which level of the capability maturity model best describes ELH's inventory purchase process?
    A. Repeatable
    B. Defined
    C. Managed
    D. Optimized

36. RSP Corporation started developing its internal audit process five years ago. When the process started, every internal auditor did things differently. But, the process has progressed until now, many employees at RSP think about ways to improve both the internal audit process and other business processes continually. Which level of the capability maturity model best describes RSP's internal audit process?

    A. Repeatable
    B. Defined
    C. Managed
    D. Optimized

37.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

Which level of the capability maturity model best describes Austin's company?

A. Chaotic
B. Defined
C. Managed
D. Optimized

38.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

Which level of the capability maturity model best describes Julie's company?

A. Repeatable
B. Defined
C. Managed
D. Optimized

39.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

Which level of the capability maturity model best describes Rob's company?

A. Chaotic, because Rob completes accounting tasks in whatever way seems best to him.
B. Chaotic, because the owners don't know much about accounting.
C. Repeatable, because Rob is likely to do the same tasks in similar ways each time.
D. Defined, because Rob has a defined methodology for completing tasks.

40.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

Based on the levels of the capability maturity model, which of the following statements is most true?

A. Austin's process is more advanced than Rob's because Austin used a team to develop the guidelines.
B. Julie's process is more advanced than Rob's because PSC is incorporated.
C. Austin's process is more advanced than Julie's because it incorporates metrics.
D. None of the above statements is true.

41.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

For Rob to move his company's business processes forward one level in the capability maturity model, he should:

A. Ask Lynn and Mark to get some accounting training.
B. Repeat each process at least five times.
C. List the major processes and establish a timeline with goals for each one.
D. All of the above.

42.

Please consider these independent cases as you respond to the next question:

- Austin is the managing partner of a small CPA firm. In an effort to standardize certain internal business processes, Austin formed a team that developed a set of guidelines for tasks such as expense reimbursements and information technology purchases. After developing the guidelines, the team devised ways to determine if the processes are performing as expected.

- Julie is the chief financial officer of PSC Corporation. She recently worked with a team to develop a broad set of principles that should characterize PSC's business processes. The team has applied those principles to some tasks in the accounting department; their next task is to teach other PSC employees about the principles.

- Rob is an accountant at CTR Company. The owners of CTR, Lynn and Mark, don't know much about accounting, so Rob completes accounting tasks in whatever way seems best to him.

For Julie to move her company's business processes forward one level in the capability maturity model, she should:

A. Make sure all PSC employees can list the principles her team developed.
B. Develop a written procedures manual that will help manage the processes.
C. Set benchmarks for each business process related to cost and time.
D. None of the above; PSC's business processes are already at the highest level of the capability maturity model.

43. Macro-level factors to consider when choosing information technology for the accounting information system include: (i) need, (ii) cost, (iii) strategic fit.
A. I and II only
B. II and III only
C. I and III only
D. I, II and III

44. Which of the following questions best relates to a macro-level factor for choosing information technology for the accounting information system?
A. What will the technology cost?
B. Should we borrow money to purchase the technology?
C. How many employees will have to learn to use the new system?
D. All of the above relate to macro-level factors.

45. Jack and Lindsay were choosing a new general ledger system for the company they own. They decided to use three factors for the evaluation: adaptability, strategic fit and training. They considered training three times more important than strategic fit; they considered adaptability twice as important as strategic fit. To keep their evaluation simple, they assigned a weight of "1" to strategic fit. If software package A had scores of 5 on adaptability, 8 on strategic fit and 9 on training, its score using the weighted-rating technique will be:
A. 6.
B. 22.
C. 45.
D. Some other number.

46. Anna and Melinda were choosing a new general ledger system for the company they own. They decided to use three factors for the evaluation: adaptability, strategic fit and training. They considered training three times more important than strategic fit; they considered adaptability twice as important as strategic fit. To keep their evaluation simple, they assigned a weight of "1" to strategic fit. If software package B had scores of 3 on adaptability, 6 on strategic fit and 8 on training, its score using the weighted-rating technique will be:
    A. 6.
    B. 12.
    C. 36.
    D. Some other number.

47. The chapter discussed four macro-level and four micro-level factors that should be considered when evaluating information technology for use in the accounting information system. It also discussed Sylla and Wen's three-stage process for evaluating information technology investments. Which of the following best pairs a macro-level factor with a level from the Sylla and Wen framework?
    A. Strategic fit, intangible benefits evaluation
    B. Need, IT investment risk analysis
    C. Vendor reliability, tangible benefits evaluation
    D. None of the above.

48. The chapter discussed four macro-level and four micro-level factors that should be considered when evaluating information technology for use in the accounting information system. It also discussed Sylla and Wen's three-stage process for evaluating information technology investments. Which of the following best pairs a micro-level factor with a level from the Sylla and Wen framework?
    A. Strategic fit, intangible benefits evaluation
    B. Cost, tangible benefits evaluation
    C. Both A and B
    D. Neither A nor B

49. Sylla and Wen suggested a three-stage process for evaluating information technology investments. Which step in the process is most closely aligned with the "internal environment" component of the COSO internal control and enterprise risk management frameworks?
    A. Step 1
    B. Step 2
    C. Step 3
    D. None of the above; there is no relationship between the Sylla and Wen process and the COSO frameworks.

50. Sylla and Wen suggested a three-stage process for evaluating information technology investments. At which stage of the process would someone be most likely to use the weighted-rating technique discussed in the chapter?
    A. Step 1
    B. Step 2
    C. Step 3
    D. None of the above. The weighted-rating technique is unrelated to the Sylla and Wen framework.

51. Arrange the steps in the systems development life cycle in their usual order of occurrence.
    ____ Initiation / planning
    ____ Test
    ____ Requirements analysis
    ____ Implementation
    ____ Design
    ____ Build
    ____ Operations and maintenance

52. Arrange the levels of the capability maturity model in order from least mature to most mature.
    ____ Defined
    ____ Optimized
    ____ Managed
    ____ Repeatable
    ____ Chaotic

53. Indicate which of the following items are **advantages** of using the systems development life cycle to design and implement an accounting information system.

    ____ Always has the same set of seven steps
    ____ Does not allow an organization to purchase off-the-shelf software
    ____ Ensures an organization's process is at least "defined" using the capability maturity model
    ____ Is less expensive than other systems development methodologies
    ____ Is less rigid than other systems development methodologies
    ____ Is organized in a very structured way
    ____ Promotes strong control of systems projects
    ____ Provides multiple opportunities for user input
    ____ Provides some flexibility in the implementation stage
    ____ Takes less time than other systems development methodologies

54.

Sylla and Wen suggested a three-stage process for evaluating information technology investments. At which step in their process would you expect to address each of the following items?

a. Ability to do things more efficiently

b. Better use of organizational resources

c. Encouragement from top management

d. Fire suppression systems

e. Impact on a company’s market share

f. Need to change the company in a fundamental way

g. Opportunities for fraud

h. Opportunity to do things more effectively

i. Producing more with less

j. Secure storage for the new IT asset

55. Using the weighted-rating technique discussed in the text, calculate a score for each software package. Rank the packages based on their scores.

Leticia and Omar were evaluating payroll software packages for their company. They considered three factors with the following weights: adaptability, 9; ease of use, 10; cost, 7. They narrowed their choices down to three packages with the following rankings on each factor:

	Package A	Package B	Package C
Adaptability	6	8	9
Ease of use	8	5	7
Cost	8	4	10

56. Nancy and Mei were designing a system for tracking continuing professional education units for accountants in their firm. They completed the tasks listed below; rearrange the tasks in the proper order based on the steps in the systems development life cycle.

____ Several employees complained that the old system was difficult to use.
____ Nancy and Mei created tables and forms using relational database software.
____ Employees began using the new system and provided periodic feedback about making it better.
____ On paper, Nancy and Mei thought about how they wanted the new system to look.
____ The new system was introduced gradually throughout the accounting department.
____ Employees wanted the new system to track hours, dates and topics of continuing professional education.
____ Paul, a co-worker of Nancy and Mei, gave permission for his continuing professional education records to be used to determine if the system would work properly.

57.

Which level of the capability maturity model best describes each of the following business processes?

a. After consulting the company procedures manual and her supervisor for guidance, Lindsay developed a more detailed description of the invoice payment process.

b. After developing a rigorous description of the purchase order process, Joe set a goal of processing each one in no more than one day.

c. After figuring out the best way to process purchase orders, Joe developed a schedule indicating what tasks he should complete each day. He did not share the schedule or the process with anyone else.

d. Although CPK Corporation had a process for paying vendor invoices, Lindsay thought it didn't work well. So, she used her own system without telling her supervisor or co-workers.

e. Employees of the purchasing department all attended a seminar on how to make the purchasing department more efficient and effective.

58.

Consider the business processes described below. For each one, indicate which level of the capability maturity model most clearly applies. Circle the phrase that led you to your choice.

a. Joe tried various ways to process purchase orders to see which one would work best.

b. Marie, an independent consultant, was trying to develop a better way for her client to monitor inventory. She interviewed several employees and looked at the company's historical records for guidance.

c. Mark led monthly discussion groups focused on how to improve various business processes throughout the company.

d. Mark prepared a list of common documents used in his job as an accounts receivable clerk; the list also indicated how many copies of each document were normally required. Mark kept the list in his desk.

e. The CEO of Marie's client explained to her that the new inventory monitoring system could cost no more than $500 per month to use.

59.

IRM Corporation had an outdated, ineffective system for monitoring its fixed assets. You have been asked by the CEO to develop a new system; you have decided to use the systems development life cycle to accomplish the task. For each fixed asset, the system should include the following items: identification code, name, date placed in service, cost, estimated life, estimated salvage value, depreciation method, and condition. For each step in the SDLC, indicate one question you would ask / action you would take to develop the new system. Ensure that your responses are specific to the fixed asset system.

a. Initiation / planning: _____

b. Requirements analysis: _____

c. Design: _____

d. Build: _____

e. Test: _____

f. Implementation: _____

g. Operations / maintenance: _____

60.

The chapter discussed four macro- and four micro-level factors to consider when selecting information technology. Suppose you have been hired as a consultant to recommend new general ledger software for a client; you have decided to conduct interviews and focus groups as part of developing your recommendation. For each factor listed below, indicate one question you would ask in the interviews / focus groups. Ensure that your questions are specific to the general ledger software.

a. Need: _____

b. Strategic fit: _____

c. Personnel involvement: _____

d. Financing: _____

e. Cost: _____

f. Adaptability: _____

g. Training: _____

h. Vendor reliability: _____

61. List the four macro- and four micro-level factors managers should consider when they select information technology resources based on the discussion in the text.

62. In your own words, explain the purpose of the capability maturity model. List the levels of the model, and explain each one in your own words.

63. You have been asked to develop a system that will track your company's short-term investments. Outline and discuss, in a general way, the steps you would use to accomplish that goal.

64. As part of your company's effort to design an enterprise risk management plan using the COSO framework, you have been asked to develop an information technology tool that will monitor the plan. Use the steps in the systems development life cycle to explain how you would proceed; ensure that your discussion includes ideas specific to monitoring the ERM plan.

65. Although CPK Corporation had a process for paying vendor invoices, Lindsay thought it didn't work well. So, she used her own system without telling her supervisor or co-workers. Assume the process would be classified as "chaotic" using the capability maturity model. For each subsequent level of the CMM, suggest one action Lindsay should take to improve the process.

ch05 Key

1. B
2. A
3. D
4. B
5. B
6. A
7. B
8. A
9. C
10. A
11. B
12. C
13. C
14. C
15. D
16. C
17. B
18. B
19. A
20. A
21. B
22. C
23. C
24. A
25. C
26. B
27. A
28. A
29. B
30. B
31. C
32. C
33. B
34. C
35. C
36. D

37. C

38. B

39. A

40. C

41. C

42. C

43. C

44. B

45. C

46. C

47. A

48. D

49. A

50. C

51. Initiation / planning - Requirements analysis - Design - Build - Test - Implementation - Operations and maintenance

52. Chaotic - Repeatable - Defined - Managed - Optimized

53. Is organized in a very structured way *and* Promotes strong control of systems projects *and* Provides multiple opportunities for user input *and* Provides some flexibility in the implementation stage

j. Step 2: IT investment risk analysis
i. Step 3: Tangible benefits evaluation
h. Step 1: Intangible benefits evaluation
g. Step 2: IT investment risk analysis
f. Step 1: Intangible benefits evaluation
e. Step 1: Intangible benefits evaluation
d. Step 2: IT investment risk analysis
c. Step 1: Intangible benefits evaluation
b. Step 3: Tangible benefits evaluation
54. a. Step 3: Tangible benefits evaluation

55.

56. Several employees complained that the old system was difficult to use. - Employees wanted the new system to track hours, dates and topics of continuing professional education. - On paper, Nancy and Mei thought about how they wanted the new system to look. - Nancy and Mei created tables and forms using relational database software. - Paul, a co-worker of Nancy and Mei, gave permission for his continuing professional education records to be used to determine if the system would work properly. - The new system was introduced gradually throughout the accounting department. - Employees began using the new system and provided periodic feedback about making it better.

e. optimized
d. chaotic
c. repeatable
b. managed
57. a. defined

e. managed: "cost no more than $500 per month to use"
d. repeatable: "prepared a list of common documents"
c. optimized: "monthly discussion groups focused on how to improve various business processes"
b. defined: "looked at the company's historical records for guidance"
58. a. chaotic: "tried various ways to process purchase orders"

g) Train system users; periodically ask for feedback about how the system is working and / or could be improved.
f) Revise the system as needed based on feedback obtained in (e). Deploy the rest of the system.
e) Populate the tables with data from a sample of fixed assets; ask system users for feedback.
d) Use the table specifications from (c) to create the tables, forms and queries needed for the fixed asset system.
c) Design table specifications with the data indicated in the problem.
b) What goals should the new fixed asset system achieve?
59. a) What are the problems with the current system for monitoring fixed assets?

h) Are there any software vendors the client wants to avoid? To pursue?
g) Who will provide the training for the new software?
f) What does the company's chart of accounts look like? How is it organized? Is the company interested in making changes to the chart of accounts?
e) Is there a budget for the software? What should it cost for the package itself? For implementation? For training?
d) Where is the money coming from to purchase the new software?
c) Who will be working with the new system? What background do they have?
b) How does the organization compete in its markets? What kind of information should the new G/L system provide that will help it compete more effectively?
60. a) How is the organization processing transactions now? Why is the organization interested in changing?

61.

Macro-level factors: need, strategic fit, personnel involvement, financing

Micro-level factors: cost, adaptability, training, vendor reliability

62.

The capability maturity model (CMM) helps organizations determine the sophistication of their business processes; it can serve as a guide for organizations that want to make their processes more cohesive and efficient.

The CMM comprises five levels:

Chaotic: everyone in the organization does things in whatever way seems best to them.
Repeatable: an individual develops a plan for completing a task and applies it consistently, but probably does not share the plan with others.
Defined: when deciding how to accomplish a task, decision makers look at broader policies and standards in the organization. They adapt and apply them to the specific task at hand.
Managed: decision makers set goals for a process, perhaps related to cost and / or time. If the process does not achieve the goals, decision makers look for ways to modify it.
Optimized: process quality is a pervasive consideration in the organization.

63.

One good way to develop such a system would be with the systems development life cycle (SDLC). The SDLC comprises seven phases:

Initiation / planning: Decision makers identify a need for a new information system; they may conduct a feasibility study.

Requirements analysis: Based on input from users, systems designers determine the goals the system should achieve. Those goals might relate to the process of gathering information and / or the outputs needed.

Design: Systems designers use the results of the requirements analysis to design system specifications. They may identify currently existing tools for the system, or they may determine the system must be designed "from scratch."

Build: Using the results of the requirements analysis and the previously developed designs, systems personnel sketch out the components of the system. Such components may include database tables, a chart of accounts, queries, forms, reports or other elements.

Test: Using the model built in the previous phase, the system is tested. These tests may involve a sample of actual data or "dummy" data developed specifically for the test. Bugs are "ironed out" based on user feedback.

Implementation: The system is deployed throughout the relevant parts of the organization.

Operations and maintenance: As the system is used, it is further fine-tuned based on user feedback. The system will likely change over time, as well.

64.

Initiation / planning: I would determine what monitoring tools the company is presently using; I'd also ask to see the ERM plan as it exists. I would find out why the company is interested in an IT monitoring tool at this particular time.

Requirements analysis: I would ask about / observe the types of data being collected as part of the ERM plan. I would also ask how those data should fit into the new monitoring system.

Design: Many organizations have ERM plans; all those plans need to be monitored. So, IT tools should already exist for that purpose. I would identify some based on the requirements analysis and present them to management; if none of them was acceptable, I would lay out the structure for a self-constructed system.

Build: I would purchase an off-the-shelf package and modify it as needed. If the system was self-constructed, I would look at the data collected in the previous phases and build the tool based on the design specs.

Test: Using the model built in the previous phase, I would test the tool with actual data or "dummy" data developed specifically for the test.

Implementation: The system is deployed throughout the relevant parts of the organization.

Operations and maintenance: As the system is used, it is further fine-tuned based on user feedback. The system will likely change over time, as well.

65.

Repeatable: Lindsay should develop a schedule for paying vendor invoices.

Defined: Lindsay should study other organizational processes, determining how their general principles could be applied to the invoice payment process. At this point, she should definitely be discussing the matter with others in the organization.

Managed: Lindsay should set goals for paying vendor invoices. For example, she might set a goal of paying each invoice within ten days of its receipt. Lindsay should ask for feedback about the reasonableness and attainability of the goals.

Optimized: Lindsay should be part of a much larger discussion in her company about the state of business processes. Business process quality and sophistication should not be a "project" undertaken periodically; rather, it should be ingrained in the organizational culture.

ch05 Summary

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