**Chapter 12—Introduction to Cost Management Systems**

**TRUE/FALSE**

1. Information provided by financial reporting systems provides valuable information to cost managers.

ANS: F

2. A management information system is a part of a management control system.

ANS: T

3. A measuring device that identifies what is actually happening in the process being controlled is a detector.

ANS: T

4. A measuring device that identifies what is actually happening in the process being controlled is an assessor.

ANS: F

5. Feedback is another name for an effector.

ANS: T

6. The operation of a management control system is readily observable.

ANS: F

7. A short-run challenge for a business is maintaining a competitive position.

ANS: F

8. A short-run challenge for a business is achieving profitability.

ANS: T

9. A long-run challenge for a business is achieving profitability.

ANS: F

10. A long-run challenge for a business is maintaining a competitive position.

ANS: T

11. A cost management system should use cost driver information to trace costs to products and services.

ANS: T

12. Most smaller businesses are organized as corporations.

ANS: F

13. It is not necessary to be familiar with an organization’s mission when designing a cost management system.

ANS: F

14. The life-cycle stage of a business is an important determinant of an organization’s activities.

ANS: T

15. Cost structure is related to an organization’s proportions of fixed and variable costs.

ANS: T

16. Automated technology makes cost control less difficult for a firm.

ANS: F

17. Increasing automation generally results in cost management becoming more long-term in nature.

ANS: T

18. Motivational elements may be quantitative or non-quantitative in nature

ANS: T

19. A profit sharing plan is an example of a motivational element.

ANS: T

20. An important function of a cost management system is to relate resource consumption and cost to alternative product and process design.

ANS: T

21. In order for cost information to be effective, a meaningful baseline performance measure should be available for comparison.

ANS: T

22. Performance measures must be quantitative to be useful.

ANS: F

23. Customer satisfaction is an example of a qualitative performance measure.

ANS: T

24. Customer satisfaction is an example of a quantitative performance measure.

ANS: F

25. An effective reporting system is increasingly important in a decentralized organization.

ANS: T

26. An enterprise resource planning system is composed of numerous software modules.

ANS: T

27. Gap analysis is a beneficial tool in implementing a cost management system.

ANS: T

**COMPLETION**

1. A structure of interrelated elements that enables management to plan, control, and evaluate performance is referred to as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: management information system

2. A measuring device that identifies what is happening in a process being controlled is referred to as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: detector or sensor

3. A device for determining what is happening in a process being controlled is referred to as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: assessor.

4. A device that alters behavior if the control system indicates a need to do so is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: feedback

5. An operation whose exact nature cannot be observed is referred to as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: black box

6. A set of formal methods used to plan and control the cost-generating activities of an organization is referred to as a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: cost management system

7. The underlying set of assumptions about an organization and the goals, processes, and values that its members share is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: organizational culture

8. How costs change relative to changes in production or sales volume is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: cost structure

9. Three groups of elements affecting the design of a cost management system are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: motivational, information, reporting

10. The study of the differences between a current and a proposed cost management system is referred to as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: gap analysis

11. A packaged business software system that allows an organization to improve the quality and timeliness of information as well as integrate and standardize information is referred to as a(n)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

ANS: Enterprise resource planning (ERP) system.

**MULTIPLE CHOICE**

1. A management information system should do which of the following?

|  |  |  |
| --- | --- | --- |
| Collect  data | Organize data  for managers | Analyze data  for management |

|  |  |
| --- | --- |
| a. | yes no yes |
| b. | yes yes no |
| c. | no no yes |
| d. | yes yes yes |

ANS: B

2. A management information system should emphasize satisfying

|  |  |
| --- | --- |
| a. | external demands for information. |
| b. | external and internal demands for information. |
| c. | internal demands for information. |
| d. | the Accounting Department's demands for information. |

ANS: C

3. Who of the following are external users of data gathered by a management information system?

|  |  |  |
| --- | --- | --- |
| Creditors | Regulatory Bodies | Suppliers |

|  |  |
| --- | --- |
| a. | yes no yes |
| b. | no no no |
| c. | no yes yes |
| d. | yes yes yes |

ANS: D

4. Which of the following is **not** a primary component of a control system?

|  |  |
| --- | --- |
| a. | operator |
| b. | communications network |
| c. | effector |
| d. | assessor |

ANS: A

5. Which of the following would be considered a detector?

|  |  |
| --- | --- |
| a. | computer program |
| b. | source document |
| c. | variance report |
| d. | all of the above |

ANS: B

6. Which of the following statements is **false** concerning a management control system?

|  |  |
| --- | --- |
| a. | A management control system may be referred to as a black box. |
| b. | A management control system should serve as a guide to organizations. |
| c. | A management control system should help implement strategies. |
| d. | A management control system is separate from a cost management system. |

ANS: D

7. Feedback is reflected in which component of a management control system?

|  |  |
| --- | --- |
| a. | sensor |
| b. | assessor |
| c. | effector |
| d. | detector |

ANS: C

8. Reactions to information provided by the management control system are

|  |  |
| --- | --- |
| a. | formulated in the organization's strategic plan. |
| b. | judgmental, and are based on interpretations and circumstances. |
| c. | assessed by the communications network of the MCS. |
| d. | determined as those activities that will be most efficient and effective given the organization's available technology. |

ANS: B

9. A cost management system should

|  |  |
| --- | --- |
| a. | identify and evaluate new activities. |
| b. | determine whether the organization is effective and efficient. |
| c. | identify the cost of consumed resources within the organization. |
| d. | all of the above. |

ANS: D

10. A cost management system should provide information to

|  |  |
| --- | --- |
| a. | all functional areas of the organization. |
| b. | only the accounting area of the organization. |
| c. | only the production area of the organization. |
| d. | organizational managers, but not to staff personnel. |

ANS: A

11. Which of the following is **not** a primary goal of a cost management system?

|  |  |
| --- | --- |
| a. | use cost drivers to develop product costs |
| b. | improve understanding of activities |
| c. | develop organizational strategies |
| d. | measure performance |

ANS: C

12. A cost management system will provide the means to develop

|  |  |
| --- | --- |
| a. | the most accurate product or service costs. |
| b. | a reasonably accurate product or service cost given cost-benefit analysis. |
| c. | a product or service cost that does not include any non-value-added overhead. |
| d. | a costing system that traces all costs directly to individual products or services. |

ANS: B

13. The costs generated by the cost management system are used to

|  |  |
| --- | --- |
| a. | assess product/service profitability. |
| b. | establish prices for products with significant competition. |
| c. | determine underlying reasons for variations from standards. |
| d. | all of the above. |

ANS: A

14. Information about the life-cycle performance of a product or service should be provided in the

|  |  |
| --- | --- |
| Financial accounting system | Cost management system |

|  |  |
| --- | --- |
| a. | yes yes |
| b. | yes no |
| c. | no yes |
| d. | no no |

ANS: C

15. Cost control is an important function of the

|  |  |  |
| --- | --- | --- |
| Financial accounting | Cost accounting | Cost management |
| system | system | system |

|  |  |
| --- | --- |
| a. | no no yes |
| b. | yes yes no |
| c. | no yes yes |
| d. | yes yes no |

ANS: C

16. A cost management system would be an integral part of implementing which of the following?

|  |  |  |
| --- | --- | --- |
| Strategic resource | Core competency | Centralized |
| management | assessment | management |

|  |  |
| --- | --- |
| a. | no yes yes |
| b. | no no no |
| c. | yes no yes |
| d. | yes yes no |

ANS: D

17. Which of the following organizational characteristics critically affect the design of a cost management system?

|  |  |  |  |
| --- | --- | --- | --- |
| Culture | Critical success factors | Mission | Form |

|  |  |
| --- | --- |
| a. | yes yes yes yes |
| b. | yes no yes no |
| c. | no yes no yes |
| d. | no yes yes no |

ANS: A

18. A cost management system

|  |  |
| --- | --- |
| a. | is finalized when the information currently being produced is the same as the information currently desired. |
| b. | can be generically designed to fit the information needs of the majority of domestic (but not global) organizations. |
| c. | must be continuously improved to adapt to changes in an organization's internal and external environment. |
| d. | that has been appropriately designed from gap analysis, does not need to be changed unless there is a change in organizational management or culture. |

ANS: C

19. In a highly regulated, monopolistic industry, such as the electrical utility or TV cable, a cost management system is

|  |  |
| --- | --- |
| a. | of limited need because costs are typically passed along to customers via the rate structure. |
| b. | essential because of the need to provide the highest degree of cost efficiency possible for customers. |
| c. | critical to the needs of empowered employees making decisions at various levels of the organizational hierarchy. |
| d. | of no use because there is no attempt by management to control costs. |

ANS: A

20. Which of the following statements is **true**?

|  |  |
| --- | --- |
| a. | A good cost management system is a key consideration in determining an organization's mission. |
| b. | The organization's mission is a critical success factor in assessing how to react to competition. |
| c. | Knowledge of an organization's critical success factors help to clarify organizational mission and develop a cost management system. |
| d. | An organization must establish a position of cost leadership to compete in a global business environment. |

ANS: C

21. Which of the following indicates the mission being pursued by a subunit that is

|  |  |
| --- | --- |
| using cash? | generating cash? |

|  |  |
| --- | --- |
| a. | save harvest |
| b. | build save |
| c. | harvest build |
| d. | build harvest |

ANS: D

22. Reducing the time-to-market for a new product

|  |  |
| --- | --- |
| a. | is only possible if a company has formed strategic alliances with its suppliers. |
| b. | generally increases long-run product costs because of the need to develop new production processes. |
| c. | results in the ability of a firm to pursue a cost leadership competitive strategy. |
| d. | may result in design flaws, a need for engineering change orders, and customer "bad will." |

ANS: D

23. An increase in the use of technology has caused

|  |  |
| --- | --- |
| a. | fewer costs to be susceptible to short-run control. |
| b. | companies to be more flexible in responding to changing short-term conditions. |
| c. | managers to be less concerned about capacity utilization because of the increased ability to produce in large quantities. |
| d. | a decline in the amount of fixed costs in an organization. |

ANS: A

24. Engaging in product design for manufacturability reduces

|  |  |  |
| --- | --- | --- |
| Training costs | Preproduction design time | Assembly time |

|  |  |
| --- | --- |
| a. | yes yes yes |
| b. | no yes yes |
| c. | yes no yes |
| d. | no no no |

ANS: C

25. Substantial reductions in product cost can be obtained by

|  |  |
| --- | --- |
| a. | decreasing capacity utilization. |
| b. | using focused factory arrangements. |
| c. | using tried and true manufacturing techniques. |
| d. | using product life cycle accounting. |

ANS: B

26. In conjunction with a cost management system, gap analysis refers to comparing

|  |  |
| --- | --- |
| a. | the information being received by competitors' managers to the information being received by in-house managers. |
| b. | the information needed to what is available. |
| c. | current cost information to projected cost information. |
| d. | budget figures to actual spending. |

ANS: B

27. Which of the following limits an organization's ability to minimize the "gaps" found when a gap analysis has been performed?

|  |  |  |
| --- | --- | --- |
| Limited resources | Number of managers | Technology capabilities |

|  |  |
| --- | --- |
| a. | yes yes yes |
| b. | yes no yes |
| c. | no yes no |
| d. | no no yes |

ANS: B

28. Which of the following is considered a "feeder" system to the cost management system?

|  |  |  |
| --- | --- | --- |
| Payroll | Budgeting | Inventory valuation |

|  |  |
| --- | --- |
| a. | yes no yes |
| b. | yes yes yes |
| c. | no no no |
| d. | yes yes no |

ANS: B

29. Which of the following is a primary element of a cost management system?

|  |  |  |  |
| --- | --- | --- | --- |
| Information | Reporting | Motivation | Evaluation |

|  |  |
| --- | --- |
| a. | yes yes yes yes |
| b. | no yes yes no |
| c. | yes no no yes |
| d. | yes yes yes no |

ANS: D

30. As part of its control function, a cost management system is useful for

|  |  |  |
| --- | --- | --- |
| Cost behavior | VA/NVA activity | Assignment of joint |
| analysis | identification | costs to joint products |

|  |  |
| --- | --- |
| a. | yes yes yes |
| b. | no yes yes |
| c. | yes no no |
| d. | yes yes no |

ANS: D

31. \_\_\_\_\_\_\_\_\_\_\_ refers to avoiding competition in making a product distinct from that of competitors by adding value or features for which consumers are willing to pay more.

|  |  |
| --- | --- |
| a. | Kaizen |
| b. | Differentiation |
| c. | Confrontation |
| d. | Cost leadership |

ANS: B

32. Distinguishing a product by adding additional features or value is part of which of the following competitive strategies?

|  |  |  |
| --- | --- | --- |
| Differentiation | Cost leadership | Confrontation |

|  |  |
| --- | --- |
| a. | yes no yes |
| b. | yes yes yes |
| c. | yes no no |
| d. | no yes yes |

ANS: A

33. A cost leadership strategy emphasizes

|  |  |
| --- | --- |
| a. | product features. |
| b. | low prices. |
| c. | just-in-time production capabilities. |
| d. | short-run opportunities for cost minimization. |

ANS: B

34. Which of the following competitive strategies is least profitable?

|  |  |
| --- | --- |
| a. | differentiation |
| b. | cost leadership |
| c. | confrontation |
| d. | price fixing |

ANS: C

35. A commonly recognized critical success factor for most organizations is

|  |  |  |  |
| --- | --- | --- | --- |
| Quality | Decentralization | Short cycle time | Responsiveness  to change |

|  |  |
| --- | --- |
| a. | yes yes yes no |
| b. | yes no yes yes |
| c. | no yes no yes |
| d. | no no yes no |

ANS: B

36. In a decentralized organization,

|  |  |
| --- | --- |
| a. | all functions are delegated to subunit managers who are closest to the information. |
| b. | subunits under the control of a single manager are normally grouped by organizational structure. |
| c. | it would be difficult to group geographically related subunits pursuing different missions under the same manager. |
| d. | functions such as financing and product/service pricing are typically retained by top management. |

ANS: C

37. Organizational form directly affects which of the following?

|  |  |  |  |
| --- | --- | --- | --- |
| Decision-making  authority | Cost of capital | Taxation | Mission |

|  |  |
| --- | --- |
| a. | no yes yes yes |
| b. | yes yes yes no |
| c. | no yes no yes |
| d. | yes yes no no |

ANS: B

38. As an organization moves to decentralize its operations, an effective reporting system will have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ when the organization was centralized.

|  |  |
| --- | --- |
| a. | about the same importance as |
| b. | less importance than |
| c. | more importance than |
| d. | a level of importance that depends on organizational size as compared to |

ANS: C

39. The performance measurement system should encourage each manager to act in a manner that

|  |  |
| --- | --- |
| a. | makes the manager's units profits as high as possible. |
| b. | most positively supports the organization's mission and competitive strategies. |
| c. | increases his/her performance reward in the form of profit sharing. |
| d. | reduces the need for informational elements in support of the manager's planning function. |

ANS: B

40. Performance reports are useful only to the extent that performance is measured against

|  |  |
| --- | --- |
| a. | a meaningful benchmark. |
| b. | the performance of all other units or managers. |
| c. | the budget as adopted for the period. |
| d. | competitors' achievements. |

ANS: A

41. The accounting function in an organization is expected to support managers in which of the following functions?

|  |  |  |
| --- | --- | --- |
| Planning | Controlling | Evaluating performance |

|  |  |
| --- | --- |
| a. | yes yes no |
| b. | no yes no |
| c. | no no yes |
| d. | yes yes yes |

ANS: C

42. Relating resource consumption and cost to alternative product and process designs can be achieved through

|  |  |
| --- | --- |
| a. | kaizen costing. |
| b. | reverse engineering. |
| c. | computer simulation. |
| d. | all of the above. |

ANS: C

43. The reward system for subunit managers of mature businesses should emphasize

|  |  |
| --- | --- |
| a. | long-term competitive prospects. |
| b. | near-term profit and cash flow. |
| c. | success in product design and development. |
| d. | exceeding last year's subunit profit. |

ANS: B

44. Profit sharing is a method of employee compensation that

|  |  |
| --- | --- |
| a. | allocates an equal amount of profit reward to each manager in the organization. |
| b. | allows organizational profits to be divided among employees in a non-taxable status. |
| c. | is contingent based on the level of subunit profit generated. |
| d. | is used in many foreign companies but is virtually nonexistent in most U.S. organizations. |

ANS: C

45. Most managers evaluate decision alternatives based on how

|  |  |
| --- | --- |
| a. | much the decision will increase or decrease organizational profits. |
| b. | the outcomes may affect selected performance measurement and reward criteria. |
| c. | much the outcome will reduce the organization's cost of capital. |
| d. | easily the decision impacts can be quantified in the organization's cost  management system. |

ANS: B

46. Performance measurements and a reward system are part of which cost management element?

|  |  |
| --- | --- |
| a. | motivational |
| b. | informational |
| c. | reporting |
| d. | all of the above |

ANS: A

47. Focus on cost control and assessing core competencies are part of which cost management element?

|  |  |
| --- | --- |
| a. | motivational |
| b. | informational |
| c. | reporting |
| d. | all of the above |

ANS: B

48. Which of the following should be able to provide the financial information needed for budget preparation?

|  |  |  |
| --- | --- | --- |
| Cost management  system | Financial accounting  system | Cost accounting  system |

|  |  |
| --- | --- |
| a. | no yes yes |
| b. | no yes no |
| c. | yes no yes |
| d. | yes yes yes |

ANS: D

49. In the future competitive environment, companies will emphasize

|  |  |
| --- | --- |
| a. | achievement of financial results. |
| b. | development of strategic alliances. |
| c. | development of annual plans. |
| d. | conformity to project expectations. |

ANS: B

50. The life cycles of many products are becoming shorter

|  |  |
| --- | --- |
| a. | causing companies to recognize that it may be more advantageous to confront, rather than compete with, the competition. |
| b. | making products in the maturity stage of their life cycle the basis on which firms expect growth to be generated. |
| c. | so companies spend less and less on product design and development because products will not last as long as previously. |
| d. | meaning that tools such as benchmarking and target costing become less important in adapting to the competitive environment. |

ANS: A

51. A responsibility accounting system provides information to top management about the

|  |  |
| --- | --- |
| a. | organizational responsibilities of each subunit manager. |
| b. | performance of each organizational subunit and its manager. |
| c. | ability of each subunit manager to ensure a satisfactory cost to revenue relationship. |
| d. | all of the above. |

ANS: B

52. Which of the following should be considered in a cost management system design?

|  |  |  |
| --- | --- | --- |
| Cost  principles | Personnel  training principles | Investment  management principles |

|  |  |
| --- | --- |
| a. | yes yes yes |
| b. | no yes yes |
| c. | no no no |
| d. | yes no yes |

ANS: D

**SHORT ANSWER**

1. Discuss the four primary components of a control system.

ANS:

The four components include the following: a detector which is a measuring device that identifies what is happening in the controlled process; an assessor that helps determine the significance of what is happening; an effector that changes the behavior if indicated by the assessor; and a communications network that transmits information between the detector and assessor and between the assessor and the effector.

2. Define a cost management system and indicate how it should help managers.

ANS:

A cost management system is a set of formal methods developed for planning and controlling an organization's cost activities relative to the goals and objectives of the organization. A cost management system should determine how effective and efficient the organization's activities are and identify the cost of resources consumed in performing these activities. The system should also identify and evaluate any new activities that may improve future performance of the organization while being aware of the changing environment in which the business operates.

3. Discuss from where an organization receives information and what happens to information within an organization.

ANS:

An organization receives information from its external operating environment that includes the following: competition, suppliers, creditors, and the government. This information is then circulated throughout the organization in both a vertical and horizontal direction. The information gathered by the organization is used for planning, decision making, evaluating performance, and controlling within the organization.

4. Discuss the characteristics of an organization for which a true cost management system would be appropriate.

ANS:

The organization for which a true CMS would be appropriate would have specified strategic goals to which its operating position is linked. Its technology, human behavior, and information systems would be integrated as would its managerial and operating systems. The organization would engage in intergroup coordination and coordinated management through employee empowerment. A focus would be on cost elimination rather than cost allocation-thus implying an activity-based management approach. Performance evaluation would rely on both financial and nonfinancial measurements. Finally, the company would utilize changing technologies and embrace customer values and customer satisfaction as part of organizational culture. This organization would be confronting high-quality worldwide competition.

5. What are the six primary goals of a cost management system? Illustrate how a CMS achieves each of these goals.

ANS:

The six goals of a cost management system are (1) to develop fairly accurate product costs by using cost drivers, (2) to assess product and/or service life-cycle performance, (3) to improve understanding of activities and processes, (4) to control costs, (5) to measure performance, and (6) to pursue organizational strategies. The illustrations given by the students should support details provided by the text.

6. List and discuss the four stages in the design of a cost management system.

ANS:

The four stages in designing a cost management system are (1) analyze,

(2) determine, (3) perform, and (4) assess. In the first stage, organizational structure, culture, and form must be analyzed, as well as the mission and critical success factors of the organization. The second stage involves determining what outputs are desired while considering motivational, informational, and reporting elements of the organization. The third stage involves performing gap analysis between desired output and current output. The fourth stage is to assess the improvements generated by reducing the gap.

7. Define confrontation strategy and indicate why many companies may believe it is the only way to face competitors.

ANS:

Confrontation strategy means that a company, while attempting to differentiate its products or becoming a low-cost producer, meets the competition head-on-knowing that any competitive advantage will last only a short time. Confrontation may become the way of the future because of decreased product life cycles (companies are better at reverse engineering and continuous improvement than in the past).

8. Name five items that would be considered critical success factors by most world-class companies. Why is each of these factors so important to organizational longevity?

ANS:

The five items most commonly named are timeliness (time-to-market), quality, customer service, efficiency/cost control, and responsiveness to change. Each student will have different ideas as to why these items are important, but the answer should address the global business environment and thus, the increase in competition, reduction in product life cycles, costs to obtain versus retain customers, litigation issues, and so forth.

9. What are five ways that an organization could reduce product costs? Provide an example of how each method would cause cost reduction.

ANS:

The answer could include any of the following: (1) developing new production processes, (2) capture learning curve and experience data, (3) increase capacity, (4) use a focused factory arrangement, (5) design products for manufacturability, (6) design products for logistical support, (7) design products for reliability, (8) design products for maintainability, and (9) use advanced technology in manufacturing products. Examples will differ by student.

10. Discuss the three elements of a cost management system.

ANS:

Motivational elements include performance measurements and the reward structure of the organization. Support of the organizational mission and competitive strategy are also considered motivational elements. Informational elements include support of the budgeting process as well as support of cost reduction initiatives. Core competencies assessment and make-or-outsource decision analyses are part of informational elements. Emphasis is placed on product life cycle, and distinctions must be made between value-added and non-value-added activities in the informational elements of a cost management system. Lastly, reporting elements include the preparation of financial statements and provision of details for responsibility accounting systems.