

## Chapter 2—Enterprise Systems

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### TRUE/FALSE

1. One of the primary goals of implementing an ERP system is to standardize systems across multiple locations and multiple divisions.

ANS: T                      PTS: 1

2. Submitting a purchase order is a business event but creating an employee record is not a business event.

ANS: F                      PTS: 1

3. Early adopters of ERP systems were in the business of making products.

ANS: T                      PTS: 1

4. ERP systems have proved to be quite easy to install and in short periods of time.

ANS: F                      PTS: 1

5. Enterprise systems potentially integrate the business process functionality and information from all of an organization's functional areas.

ANS: T                      PTS: 1

6. With an enterprise system an organization will conduct business in a more costly manner.

ANS: F                      PTS: 1

7. An add-on software module in an enterprise system might be a customer relationship management system (CRM).

ANS: T                      PTS: 1

8. The dominant player in the large system ERP arena is Microsoft.

ANS: F                      PTS: 1

9. SAP has a primary focus on large Fortune 500 type companies.

ANS: T                      PTS: 1

10. Microsoft Dynamics and Sage Group focus on small and mid market sized companies.

ANS: T                      PTS: 1

11. Customer relationship management (CRM) software builds and maintains an organization's customer-related database.

ANS: T                      PTS: 1

12. Customer relationship management (CRM) software aggregates, manages, and retains data across the entire organization for the identification, acquisition, and retention of vendors to maximize the benefits of those relationships.

ANS: F                      PTS: 1

13. If you have made a Web purchase such as with Amazon.com you have experienced some of the functionality of a CRM system where the vendor keeps track of your name, address, and purchases.

ANS: T                      PTS: 1

14. Customer relationship management (CRM) functionality includes procurement and contract management.

ANS: F                      PTS: 1

15. Customer self service (CSS) software is often an extension of CRM software.

ANS: T                      PTS: 1

16. Supply chain management (SCM) software helps plan and execute steps such as demand planning, acquiring inventory, manufacturing, distributing, and selling the product.

ANS: T                      PTS: 1

17. Supplier relationship management (SRM) software manages the interactions with the organization's that supply the goods and services to an enterprise.

ANS: T                      PTS: 1

18. Middleware is a software product that connects two or more separate applications or software modules.

ANS: T                      PTS: 1

19. Enterpriseware might be used to stitch together a number of legacy systems, an enterprise system, best-of-breed applications, and Web-based applications.

ANS: F                      PTS: 1

20. An Application Programming Interface (API) is a means for connecting to a system or application provided by the developer of that application.

ANS: T                      PTS: 1

21. Microsoft Dynamics Snap line of tools is an example of an Application Programming Interface.

ANS: T                      PTS: 1

22. Enterprise application integration (EAI) links together two or more systems and allows them to work together.

ANS: T                      PTS: 1

23. Product life-cycle management (PLM) software manages product data from design through manufacture, and disposal.
- ANS: T                      PTS: 1
24. When choosing modules for an organization's ERP system, it is generally best to select them all from a single vendor.
- ANS: F                      PTS: 1
25. DreamWeaver is a Web services platform from SAP that can be used to build applications that integrate business processes and databases from a number of sources within and between organizations.
- ANS: F                      PTS: 1
26. Business process management (BPM) provides a comprehensive method for integrating manual and automated internal processes, applications, and systems, as well as integration to external partners and services.
- ANS: T                      PTS: 1
27. With a best-of-breed approach an organization can minimize the number of different software modules employed to implement an enterprise system.
- ANS: F                      PTS: 1
28. Because of the enormous implementation costs, only very large organizations can afford ERP systems.
- ANS: F                      PTS: 1
29. The data captured as business events occur should be sufficient for someone who was not a party to the event to understand and reconstruct what happened.
- ANS: T                      PTS: 1
30. The value chain is a chain of activities performed by the organization to transform outputs into inputs valued by the customer.
- ANS: T                      PTS: 1
31. An organization creates a competitive advantage by creating less value for its customers than does its competition.
- ANS: F                      PTS: 1
32. Supporting activities of the value chain include activities directly involved with marketing, producing, selling, and delivering the product or service to the customer.
- ANS: F                      PTS: 1
33. Primary activities of the value chain provide infrastructure such as procurement, information technology, human resources, and accounting.

ANS: F                   PTS: 1

34. The value chain works to separate the functional activities or *silos* of the organization.

ANS: F                   PTS: 1

35. Dell's value chain takes raw materials, manufactures computers and other products, and delivers them to customers in a timely manner at an attractive price.

ANS: T                   PTS: 1

36. The activities in the value chain, the value activities, are *business processes* that convert inputs to valued outputs.

ANS: T                   PTS: 1

37. In a disaggregated information system, the customer will be notified immediately whether the item is on the shelf and not committed to another customer.

ANS: F                   PTS: 1

38. Telling the customer when they will receive an item is known as *available to promise (ATP)*.

ANS: T                   PTS: 1

39. A character is a basic unit of data such as a letter, number, or special character.

ANS: T                   PTS: 1

40. A field is a collection of related characters that comprise an attribute, such as a customer number or name.

ANS: T                   PTS: 1

41. A record is a collection of related data fields pertaining to a particular entity or event.

ANS: T                   PTS: 1

42. The credit limit within a customer record always provides unlimited authorization to accept a customer order.

ANS: F                   PTS: 1

43. Segregation of duties includes separating the sales and credit departments.

ANS: T                   PTS: 1

44. Generally, when processing a customer order, one does not need to know the total price of the goods before credit authorization can be made.

ANS: F                   PTS: 1

45. In an enterprise system, once a customer order is completed, the purchasing function can be immediately informed that the merchandise has been sold and may need to be replenished.

ANS: T                    PTS: 1

46. The Controlling module of the SAP system handles internal accounting and profitability analysis.

ANS: T                    PTS: 1

47. An enterprise systems centralized database can make data, such as inventory data, visible throughout the organization.

ANS: T                    PTS: 1

48. The correct sequence of the three steps in the sales and distribution process are (1) order entry (2) shipment process and (3) billing process.

ANS: T                    PTS: 1

49. The correct sequence of the three steps in the materials management process is (1) record vendor invoice (2) create purchase order (3) receive the goods.

ANS: F                    PTS: 1

50. The bottom line is that without integrated information systems organizations have difficulty being managed on a day-to-day basis and being successful in the long run.

ANS: T                    PTS: 1

51. The financial accounting module integrates with the sales and distribution and materials management modules.

ANS: T                    PTS: 1

52. The purchase-to-pay process includes the events surrounding the sale of goods to a customer, the recognition of revenue, and the collection of the customer payment.

ANS: F                    PTS: 1

53. The order-to-cash process includes events surrounding the purchase of goods from a vendor, the recognition of those costs, and the payment to the vendor.

ANS: F                    PTS: 1

## **MULTIPLE CHOICE**

1. Organizations install enterprise systems
  - a. to differentiate themselves from competitors
  - b. to reduce costs of conducting business
  - c. to improve performance
  - d. all of the above

ANS: D                    PTS: 1

2. Core applications of an ERP are
- financial accounting
  - materials management
  - sales and distribution
  - all of the above

ANS: D                    PTS: 1

3. Which of the following is usually not part of an ERP's core applications?
- legacy systems
  - financial accounting
  - material management
  - sales and distribution

ANS: A                    PTS: 1

4. The enterprise system might facilitate the purchase of office equipment by all of the following except
- providing an electronic order form (a purchase requisition)
  - assisting the vendor with the selection of the appropriate purchase order
  - routing the order to appropriate authorities for specific approval
  - making data available for management analysis

ANS: B                    PTS: 1

5. The most dominant player in the ERP market for large companies is
- Oracle
  - Sage
  - SAP
  - Microsoft

ANS: C                    PTS: 1

6. Sales force automation software
- automates order processing
  - monitors inventory
  - assists with employee performance evaluations
  - all of the above

ANS: D                    PTS: 1

7. An application program interface (API)
- is an approach that combines processes, software, standards and hardware to link two or more systems together
  - is a means for connecting to a system or application provided by the application developer
  - streamlines the process between an enterprise and its customers
  - joins activities together into an end-to-end business process

ANS: B                    PTS: 1

8. Software that builds and maintains an organization's customer-related database is known as
- customer relationship management (CRM) software
  - customer self service (CSS) software
  - sales force automation (SFA) software
  - supply chain management (SCM) software

ANS: A                    PTS: 1

9. Software that allows an organization's customers to complete inquiry without the aid of the organization's employees is known as
- customer relationship management (CRM) software
  - customer self service (CSS) software
  - sales force automation (SFA) software
  - supply chain management (SCM) software

ANS: B                    PTS: 1

10. Software that automates sales tasks such as order processing and tracking is known as
- customer relationship management (CRM) software
  - customer self service (CSS) software
  - sales force automation (SFA) software
  - supply chain management (SCM) software

ANS: C                    PTS: 1

11. Software that helps execute steps such as demand planning, acquiring inventory, manufacturing, distribution, and sales is known as
- customer relationship management (CRM) software
  - customer self service (CSS) software
  - supplier relationship management (SRM) software
  - supply chain management (SCM) software

ANS: D                    PTS: 1

12. Software that manages the interactions with the organization's that supply the goods and services to an enterprise is known as
- customer relationship management (CRM) software
  - customer self service (CSS) software
  - supplier relationship management (SRM) software
  - supply chain management (SCM) software

ANS: C                    PTS: 1

13. Software that manages the product, beginning with the design of the product, continuing through manufacture and culminating in the disposal of the product, is known as
- product lifecycle management (PLM) software
  - product relationship management (PRM) software
  - product self service (PSS) software
  - supplier relationship management (SRM) software

ANS: A                    PTS: 1

14. Supply chain management (SCM) software
- is typically under the control of external partners in the chain.
  - helps plan and execute demand planning; acquiring inventory; and manufacturing, distributing, and selling a product.
  - cannot be integrated into an overall ERP.
  - none of the above

ANS: B                    PTS: 1

15. Some third-party modules can extract data from

- a. legacy systems only
- b. ERP systems only
- c. both legacy systems and ERP systems
- d. neither legacy systems nor ERP systems

ANS: C                    PTS: 1

16. Which of the following tracks a product from design, continuing through manufacture, and culminating with the disposal of the product at the end of its life?
- a. supply chain management (SCM)
  - b. value chain
  - c. product life cycle management (PLM)
  - d. none of the above

ANS: C                    PTS: 1

17. Technology that can connect together ERP systems and third party add-on modules is called
- a. supply chain software
  - b. enterprise application integration (EAI)
  - c. EDP systems
  - d. none of the above

ANS: B                    PTS: 1

18. Enterprise systems support an organization by:
- a. facilitating the functioning of an organization's operations
  - b. retaining records about business events
  - c. storing data useful for decision making
  - d. all of the above

ANS: D                    PTS: 1

19. The enterprise system might help purchase office equipment by
- a. connecting directly to the enterprise system of the equipment vendor
  - b. verifying that appropriate approvals have been obtained
  - c. providing an electronic order form
  - d. all of the above

ANS: D                    PTS: 1

20. A collection of entity/event instances is a
- a. record
  - b. table
  - c. field
  - d. character

ANS: B                    PTS: 1

21. Business events include
- a. creating a new employee record
  - b. receiving a payment from a customer
  - c. submitting a purchase order to a vendor
  - d. all of the above

ANS: D                    PTS: 1

22. The general term for software that connects third-party modules to ERP systems is known as
- DreamWeaver
  - Middleware
  - Microsoft
  - NetWeaver

ANS: B                    PTS: 1

23. Software packages that can be used for the core systems necessary to support enterprise systems.
- Application Programming Interface (API) systems
  - Business Process Management (BPM) systems
  - Enterprise Resource Planning (ERP) systems
  - Event-driven architecture (EDA) systems

ANS: C                    PTS: 1

24. This provides a comprehensive method for integrating manual and automated internal processes, applications, and systems, as well as integration to external partners and services.
- Application Programming Interface (API)
  - Business Process Management (BPM)
  - Enterprise Resource Planning (ERP)
  - Event-driven architecture (EDA)

ANS: B                    PTS: 1

25. Primary activities of the value chain include
- Accounting
  - Human Resources
  - Procurement
  - Production

ANS: D                    PTS: 1

26. Supporting activities of the value chain include
- Accounting
  - Marketing
  - Production
  - Sales

ANS: A                    PTS: 1

27. Information technology (IT) has been able to create additional value by
- reducing costs
  - improving quality
  - balancing the cost and timeliness of value activities
  - all of the above

ANS: D                    PTS: 1

28. Which of the following statements is false?
- Value chain activities need to be closely coordinated.
  - Primary value chain activities include marketing and sales.
  - An organization's value chain is the only component of the value system.
  - None of the statements are false.

ANS: C                    PTS: 1

29. The correct sequence of elements leading to an "available to promise" (ATP) is
- item availability, customer creditworthiness, price
  - customer creditworthiness, price, item availability
  - price, customer creditworthiness, item availability
  - item availability, price, customer creditworthiness

ANS: D                    PTS: 1

30. The four Ws of capturing data do not include
- Who
  - What
  - Why
  - When

ANS: C                    PTS: 1

31. A basic unit of data such as a letter, number, or special character is known as a
- Character
  - Field
  - Record
  - Table

ANS: A                    PTS: 1

32. A collection of related characters that comprise an attribute such as a customer number or name is known as a
- Character
  - Field
  - Record
  - Table

ANS: B                    PTS: 1

33. A collection of related data fields pertaining to a particular entity or event is known as a
- Character
  - Field
  - Record
  - Table

ANS: C                    PTS: 1

34. The correct sequence of events for entering a customer order is
- edit order, record sales order, update inventory, notify warehouse
  - record sales order, edit order, update inventory, notify warehouse
  - notify warehouse, edit order, record sales order, update inventory
  - edit order, notify warehouse, record sales order, update inventory

ANS: A                    PTS: 1

35. Steps in the sales and distribution process include all of the following except
- order entry
  - shipment
  - receiving
  - billing

ANS: C                    PTS: 1

36. Steps in the materials management process include all of the following except
- creating the purchase order
  - shipment
  - receiving
  - recording the vendor invoice

ANS: B                    PTS: 1

37. The \_\_\_\_ module plays a central role in the SAP system by collecting business events from other modules.
- human resources
  - controlling and profitability analysis
  - financial accounting
  - customer relationship management

ANS: C                    PTS: 1

38. The \_\_\_\_ module of the SAP system handles internal accounting including cost center accounting, activity-based accounting, and budgeting.
- human resources
  - controlling and profitability analysis
  - financial accounting
  - customer relationship management

ANS: B                    PTS: 1

39. The \_\_\_\_ module of the SAP system handles payroll processing.
- human resources
  - controlling and profitability analysis
  - financial accounting
  - customer relationship management

ANS: A                    PTS: 1

40. Which of the following is included in the first step in the order-to-cash process?
- sales order processing
  - responding to customer inquiries
  - pick and pack
  - Billing

ANS: B                    PTS: 1

41. What is the correct sequence of the order-to-cash process?
- responding to customer inquiries; sales order processing; pick and pack; billing; shipping; payment
  - sales order processing; responding to customer inquiries; pick and pack; shipping; billing; payment
  - sales order processing; pick and pack; billing; shipping; payment; responding to customer inquiries
  - responding to customer inquiries; sales order processing; pick and pack; shipping; billing; payment

ANS: D                    PTS: 1

42. What is the first step in the purchase-to-pay process?

- a. purchase order processing
- b. pick and pack
- c. requirements determination
- d. goods receipt

ANS: C                      PTS: 1

43. What is the correct sequence of the purchase-to-pay process?

- a. purchase order processing; goods receipt; invoice verification; payment processing; requirements determination
- b. requirements determination; purchase order processing; goods receipt; invoice verification; payment processing
- c. purchase order processing; requirements determination; goods receipt; invoice verification; payment processing
- d. requirements determination; purchase order processing; invoice verification; goods receipt; payment processing

ANS: B                      PTS: 1

## COMPLETION

1. \_\_\_\_\_ integrate the business process functionality and information from all of an organization's functional areas, such as marketing and sales, cash receipts, purchasing, cash disbursements, human resources, production and logistics, and business reporting (including financial reporting).

ANS: Enterprise systems

PTS: 1

2. \_\_\_\_\_ are software packages that can be used for the core systems necessary to support enterprise systems.

ANS:  
Enterprise resource planning (ERP) systems  
ERP systems  
Enterprise resource planning systems

PTS: 1

3. \_\_\_\_\_ software builds and maintains an organization's customer-related database.

ANS:  
Customer relationship management (CRM)  
CRM  
Customer relationship management

PTS: 1

4. \_\_\_\_\_ software allows an organization's customers to complete an inquiry, perform a task (including sales), or troubleshoot problems, without the aid of an organization's employees.

ANS:  
Customer self-service (CSS)  
CSS  
Customer self-service

PTS: 1

5. \_\_\_\_\_ software automates sales tasks such as order processing, contact management, inventory monitoring, order tracking, and employee performance evaluation.

ANS:  
Sales force automation (SFA)  
SFA  
Sales force automation

PTS: 1

6. \_\_\_\_\_ software helps plan and execute the steps in an organization's supply chain including demand planning; acquiring inventory; and manufacturing, distributing, and selling the product.

ANS:  
Supply chain management (SCM)  
SCM  
Supply chain management

PTS: 1

7. \_\_\_\_\_ software manages the interactions with the organizations that supply the goods and services to an enterprise.

ANS:  
Supplier relationship management (SRM)  
SRM  
Supplier relationship management

PTS: 1

8. \_\_\_\_\_ software manages product data during a product's life, beginning with the design of the product, continuing through manufacture, and culminating in the disposal of the product at the end of its life.

ANS:  
Product life-cycle management (PLM)  
PLM  
Product life-cycle management

PTS: 1

9. \_\_\_\_\_ is the dominant player in the ERP market for large businesses.

ANS: SAP

PTS: 1

10. \_\_\_\_\_ includes integration of business processes, software, standards, and hardware to link two or more systems together allowing them to act as one.

ANS:

Enterprise application integration (EAI)

EAI

Enterprise application integration

PTS: 1

11. The \_\_\_\_\_ approach combines modules from various vendors to create an information system that better meets an organization's needs than a standard ERP system.

ANS: best-of-breed

PTS: 1

12. A(n) \_\_\_\_\_ is a means for connecting to a system or application provided by the developer of that application.

ANS:

Application Programming Interface (API)

API

Application Programming Interface

PTS: 1

13. \_\_\_\_\_ usually includes a design environment for modeling and documenting business processes. This process is targeted at looking for improvements that can be made to the existing system to increase efficiency and effectiveness.

ANS:

Business process management (BPM)

BPM

Business process management

PTS: 1

14. \_\_\_\_\_ such as requiring separate authorizations for data-maintenance and business event processing activities is important in the prevention of many fraudulent activities.

ANS: Segregation of duties

PTS: 1

15. The \_\_\_\_\_ module plays a central role in the SAP system by incorporating business events from other modules into the general ledger accounts.

ANS:

Financial Accounting

FI

PTS: 1

16. Primary activities of the \_\_\_\_\_ include activities directly involved with marketing, producing, selling, and delivering the product or service to the customer.

ANS: value chain

PTS: 1

17. The \_\_\_\_\_ of the value chain include functions such as moving raw materials into and around the organization, producing and delivering goods to the customer, and performing services such as installation and after-sales support.

ANS: primary activities

PTS: 1

18. The \_\_\_\_\_ of the value chain are those that provide infrastructure and include functions such as procurement, information technology, human resources and accounting.

ANS: supporting activities

PTS: 1

19. Telling the customer when the item will be received is known as \_\_\_\_\_.

ANS:  
available to promise (ATP)  
ATP  
available to promise

PTS: 1

20. A(n) \_\_\_\_\_ is a basic unit of data such as a letter, number, or special character.

ANS: character

PTS: 1

21. A(n) \_\_\_\_\_ is a collection of related characters that comprise an attribute, such as a customer number or name.

ANS: field

PTS: 1

22. A(n) \_\_\_\_\_ is a collection of related data fields pertaining to a particular entity or event.

ANS: record

PTS: 1

23. The existence of the customer record, including the \_\_\_\_\_, provides the basic authorization required to accept and record the customer order.

ANS: credit limit

PTS: 1

24. The \_\_\_\_\_ process includes the events surrounding the sale of goods to a customer, the recognition of revenue, and the collection of the customer payment.

ANS: order-to-cash

PTS: 1

25. The \_\_\_\_\_ process includes events surrounding the purchase of goods from a vendor, the recognition of the cost of those goods, and the payment to the vendor

ANS: purchase-to-pay

PTS: 1

26. \_\_\_\_\_ are older systems that may exist in an organization when a newer system, such as an ERP, is installed.

ANS: Legacy systems

PTS: 1

27. SAP \_\_\_\_\_ is a technology platform that allows a collection of applications to interact and work together.

ANS: NetWeaver

PTS: 1

28. The four Ws of capturing data are \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_, and  
\_\_\_\_\_.

ANS: who, what, where, when

PTS: 1

29. Edit order, record sales order, update inventory, notify warehouse is the sequence of events for entering a(n) \_\_\_\_\_.

ANS:  
customer order  
sales order

PTS: 1

30. The steps in the \_\_\_\_\_ process include creating the purchase order, receiving the goods and services, recording the vendor invoice

ANS:

materials management (MM)

MM

material management

purchase-to-pay

PTS: 1

31. The module that handles internal accounting including cost center accounting, activity based accounting, and budgeting is \_\_\_\_\_.

ANS:

controlling (CO) and profitability analysis (PA)

controlling (CO)

CO

CO/PA

controlling and profitability analysis

PTS: 1

32. The module that handles payroll processing is \_\_\_\_\_.

ANS:

human resources (HR)

HR

human resources

PTS: 1

33. The first step in the order-to-cash process is \_\_\_\_\_.

ANS:

presale activities

responding to customer inquiries

PTS: 1

34. The first step in the purchase-to-pay process is \_\_\_\_\_.

ANS: requirements determination

PTS: 1

35. \_\_\_\_\_ include any meaningful change in the state of an enterprise, such as creating a new employee record, submitting a purchase order to a vendor, receiving a payment from a customer, picking goods from a warehouse and delivering them to the shipping department, and revaluing inventory.

ANS: Business events

PTS: 1

36. Third-party modules are connected to the ERP system using \_\_\_\_\_, a software product that connects two or more separate applications or software modules.

ANS: middleware

PTS: 1

## ESSAY

1. Define enterprise resource planning (ERP) systems and give some examples of common ERP add-on modules.

ANS:

Enterprise resource planning (ERP) systems are software packages that can be used for the core systems necessary to support enterprise systems. ERP products are designed to offer integration of virtually all of an organization's major business functions. Examples of common ERP add-on modules include customer relationship management (CRM) software; customer self-service (CSS) software; sales force automation (SFA) software; supply chain management (SCM) software; product lifecycle management (PLM) software; and supplier relationship management (SRM) software.

PTS: 1

2. What are the primary activities of the value chain and what are some of the main functions included in the value chain?

ANS:

The primary activities of the value chain include those directly involved with marketing, selling, producing and delivering the product or service. This includes functions such as moving raw materials into and around the organization, producing and delivering the products or services to the customer, performing services such as installation and after sales support.

PTS: 1

3. List and describe the 6 steps in the order-to-cash process.

ANS:

1. Pre-sales activities including responding to customer inquiries and RFQs.
2. Sales order processing which includes capturing and recording customer orders.
3. Pick and pack which includes picking the goods from the shelf in the warehouse and packing the goods for shipment.
4. Shipping the goods to the customer which includes selecting the appropriate carrier, recording the reduction in inventory, recording cost of goods sold.
5. Billing which includes preparing the customer invoice, recording sales, and recording accounts receivable.
6. Payment which includes recording cash receipts, updating cash and accounts receivable.

PTS: 1

4. List and describe the 5 steps in the purchase-to-pay process.

ANS:

1. Requirements determination which includes preparing the purchase requisition.

2. Purchase order processing which includes preparing and recording purchase orders. In an enterprise system where RFQs are used, it also includes analyzing vendor quotations.
3. Goods receipt which includes comparing the amount ordered to the amount received.
4. Invoice verification which includes receiving the invoice making a three way match of the purchase order, the receipt, and the vendor invoice and recording accounts payable.
5. Payment processing which includes preparing and recording cash disbursements and updating the cash and accounts payable accounts.

PTS: 1

5. Discuss three ways that enterprise systems achieve quality of information goals.

ANS:

The answer should include any three of the following.

Enterprise systems can collect a wide variety of data about business events and make that data available for use to all interested and authorized persons inside and outside the organization. The data should help all users (*relevance, understandability*) make decisions (*decision usefulness*) and analyze past events to make predictions about future events (*predictive/feedback value*).

An enterprise system's central database retains one version of data elements, uses that data to verify the accuracy of new data elements entered into the database, and applies business rules to permit only authorized changes to the database. Combined these improve the *reliability, validity, and accuracy* of the database.

Organization-wide enforcement of data standards and business rules means that business events will be handled *consistently* across the organization, that all relevant data will be collected (*completeness*) and that the collected data will be *verifiable* and *neutral*.

The integrated nature of the enterprise system makes all data available in a *timely* manner.

The system facilitates the sharing of services for *efficiency* and *consistency*.

PTS: 1

6. List four pros and four cons of ERP packages.

ANS:

The pros should include any four of the following:

One package across many functions

Best practices

Modular structure

No development needed (unless modifications are required)

Configurable

Reduced errors (business rules, enter data once)

The cons should include any four of the following:

Complex and inflexible

Best practices are shared by all who use it

Difficult to configure

Long implementation

Best of breed might be better than single ERP package

Can't meet all needs (developed for many user types)

PTS: 1

7. Why might a firm decide to implement only certain modules in an ERP system rather than a complete implementation?

ANS:

The answer should include such items as:

Cost considerations

Implementing additional modules one at a time or on an as needed basis with additional modules added at a later time

There may be legacy systems that they do not want to change

The firm may want to add on other modules from a combination of ERP vendors using enterprise application integration

PTS: 1

8. What are the potential problems with a best-of-breed approach?

ANS:

Potential problems include sacrificing the tight integration offered by ERP systems, errors during the translation and transmission between modules and higher total licensing, implementation and maintenance costs than with a single provider.

PTS: 1

9. Describe and explain these concepts and their relationship to one another: enterprise application integration, middleware, and application programming interface.

ANS:

Enterprise application integration (EAI) is an approach to connecting together multiple pieces of an enterprise system and/or connecting the enterprise systems of different organizations. Middleware is a software product that connects two or more separate applications or software modules in this approach. An Application Programming Interface (API) is a type of middleware that is a means for connecting to a system or application provided by the developer of that application.

PTS: 1