Chapter 2 Data Governance and IT Architecture Support Long-Term Performance

Test Bank

Multiple Choice

1. _____ business models strive to create the best solution or experience for the customer.

    a. Product-centric
    b. Customer-centric
    c. Profit-centric
    d. Revenue-centric

Answer: B
Difficulty: Easy
Section Reference: Chapter Snapshot and Opening Case
Learning Objective: Provide a real-world example of data governance and IT architecture support long-term performance.
AACSB: Use of Information Technology

2. _____ is the control of enterprise data through formal policies and procedures to help ensure that data can be trusted and are accessible.

    a. Data governance
    b. Master data management
    c. Business strategy
    d. Data standardization

Answer: A
Difficulty: Medium
Section Reference: Chapter Snapshot and Opening Case
Learning Objective: Provide a real-world example of data governance and IT architecture support long-term performance.
AACSB: Use of information technology

3. _____ is the use of IT tools and methods to collect, process, consolidate, store, and secure data from sources that are often fragmented and inconsistent.

      a. Information management
      b. Data governance
      c. IT strategy
      d. IT development

Answer: A
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information technology

4. Which of the following is not one of the reasons for information deficiencies?

      a. Data silos
      b. Lost or bypassed data
      c. Distributed systems
      d. Nonstandardized data formats

Answer: C
Difficulty: Hard
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information technology

5. Which of the following descriptions about enterprise architecture (EA) is false?

      a. EA is the blueprint that guides and governs software add-ons, upgrades, hardware, systems, networks, cloud services and other IT.
      b. EA is a well-thought out IT growth plan.
      c. EA is needed for simple, single-user, nondistributed systems as well as complex distributed systems.
      d. EA starts with the organization's target—vision of the future.

Answer: C
Difficulty: Hard
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information technology

6. Which of the following is not one of the benefits of enterprise architecture (EA)?

    a. Increases productivity by giving decision makers access to information and ideas as they need them.
    b. Provides a long-term view of a company's systems so that IT investments do not simply fulfill immediate needs.
    c. Reduces the risk of buying or building systems and apps that are incompatible or unnecessarily expensive to maintain
    d. Aligns the business strategy with the industry structure to prevent bottlenecks.

Answer: D
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information technology

7. Which of the following is not one of the essential skills of an effective enterprise architect?

    a. Interpersonal skills
    b. Data analytics
    c. Ability to influence and motivate users.
    d. Business and industry expertise.

Answer: B
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

8. The success of any data-driven initiative, such as marketing campaigns, depends on _____.

    a. Enterprise data governance
    b. Customer loyalty
    c. Cost control
    d. Project management

Answer: A
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.

9. The overall goal of information management is _____.

    a. To reduce costs and maintain high standards of information security by setting strict guidelines for access.
    b. To design and implement a well–planned out IT architecture, policies, and procedures needed to support the information and decision needs of an organization.
    c. To insure compliance with government regulations regarding privacy, security and confidentiality.
    d. Reduce the size of an organization's workforce and reliance on skilled employees.

Answer: B
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

10. _____ describe key entities such as customers, products and services, vendors, locations, and employees around which business is conducted.

    a. Master data
    b. Data silos
    c. Baseline architectures
    d. Data warehousing

Answer: A
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

11. Many health care organizations are drowning in data. Yet health care workers cannot get reliable insights from this data. Information from physician notes, registration forms, discharge summaries, documents and so on often go unused or are difficult for administrators and mangers to access. One of the primary reasons for this problem is that _____.

    a. Cutbacks in IT budgets have reduced their ability to operate effectively.
    b. Users lack training and experience with health care apps.
    c. Data are stored in silos.

d. Security policies that are too stringent

Answer: C
Difficulty: Hard
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective thinking

12. Which of the following is not a characteristic or consequence of weak data governance?

    a. Data duplication causes isolated data silos
    b. Users do not trust the data and waste time verifying the data
    c. Increased workloads and processing time
    d. Prohibitive cost of high quality data.

Answer: D
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

13. Data management methodologies cannot solve _____ problems; they can only provide a framework in which those problems can be solved.

    a. Political
    b. Tactical
    c. Strategic
    d. Operational

Answer: A
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

14. There is an old adage that says "If you can't measure it, you can't manage it". Managers who want to measure and track their organization's performance will frequently use _____ to evaluate their company's progress toward goals.

    a. Statistics

b. Dashboards
c. Key performance indicators
d. Budget indices

Answer: C
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

15. Max is V.P. of sales at Ski Warehouse, a chain of snow sports equipment outlets throughout the Rocky Mountain and northwest regions of the U.S. The company was built over time by purchasing successful independent sporting equipment retailers. Max now finds it difficult to evaluate some of his store locations because they report their sales figures on a quarterly basis rather than monthly as do the stores in the rest of the company. This difficulty is an example of which of the following information deficiencies?

a. Lost or bypassed data
b. User-fierce interfaces
c. Data silos
d. Non-standardized data

Answer: D
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

16. Murray University invested over $450,000 in a customized learning management system so that professors could put courses online and use the Internet to deliver course content and communications to students. After the first year of use, only 20% of the faculty were using the system. Administrators were frustrated to learn that most faculty found the system difficult to use and that students also had difficulty understanding how to find information on the system. This case is an example of which of the following information deficiencies?

a. Lost or bypassed data
b. User-fierce interfaces
c. Data silos
d. Non-standardized data

Answer: B
Difficulty: Easy

Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of information Technology

17. Success of EA and data governance can be measured in financial terms of profitability and ROI, and in the nonfinancial terms of _____.

   a. Improved customer satisfaction, faster speed to market, and lower employee turnover.
   b. Improved KPIs and supply chain management
   c. Lower MDM and improved customer loyalty
   d. Improved cash flows

Answer: A
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of information Technology

18. The technical architecture of the EA (enterprise architecture) describes _____.

   a. The hardware and software infrastructure that supports applications and their interactions.
   b. How an enterprise's data stores are organized and accessed.
   c. How specific applications are designed and how they interact with each other.
   d. The processes the business uses to meet its goals.

Answer: A
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of information Technology

19. According to Gartner, the enterprise architecture (EA) needs to start with _____.

   a. Databases and data warehouse capabilities.
   b. Current business processes.
   c. The organization's strategic direction.
   d. The IT budget.

Answer: C

20. In the food industry, _____ is required to comply with food safety regulations that require being able to trace contamination problems back to a particular processing plant and even back to the farm.

   a. data governance
   b. IT-business alignment
   c. data architecture
   d. a technology audit

Answer: A
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
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AACSB: Use of information Technology

21. Which of the following is not one of the 4 components of the enterprise architecture?

   a. Application architecture
   b. Business architecture
   c. Computing architecture
   d. Data architecture

Answer: C
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
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AACSB: Use of information Technology

22. The business architecture describes _____.

   a. How specific apps are designed and how they interact with each other.
   b. How an enterprise's data stores are organized and accessed.
   c. The hardware and software infrastructure that supports applications and their interactions.
   d. The processes the business uses to meet its goals.

23. The application architecture describes _____.

      a. How specific apps are designed and how they interact with each other.
      b. How an enterprise's data stores are organized and accessed.
      c. The hardware and software infrastructure that supports applications and their interactions.
      d. The processes the business uses to meet its goals.

24. The data architecture describes _____.

      a. How specific apps are designed and how they interact with each other.
      b. How an enterprise's data stores are organized and accessed.
      c. The hardware and software infrastructure that supports applications and their interactions.
      d. The processes the business uses to meet its goals.

25. Which of the following is not a method for measuring the success of IT architecture?

      a. ROI
      b. Technology lifespan
      c. Customer satisfaction
      d. Employee turnover

Answer: B
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of information Technology

26. The terms "data", "information", and "knowledge" have specific meanings. With regard to a customer satisfaction application used in the automobile industry, which of the following is an example of data?

     a. The ability to create a program that provides rewards for dealerships with high levels of customer satisfaction and corrective action plans for dealerships that have low levels of satisfaction.
     b. The Web-based application that collects and stores records of customer satisfaction surveys and allows dealerships to view their data.
     c. Reports that summarize ratings for a specific dealership including a calculation of the average rating across all survey questions and a calculation of summary statistics for groups of questions that correspond to important dimensions such as dealership staff, satisfaction with product, quality of service and so on.
     d. Records containing numerical ratings from customer surveys completed online after each visit to a dealership.

Answer: D
Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Reflective Thinking

27. The terms "data", "information" and "knowledge" have specific meanings. With regard to a customer satisfaction application used in the automobile industry, which of the following is an example of information?

     a. The ability to create a program that provides rewards for dealerships with high levels of customer satisfaction and corrective action plans for dealerships that have low levels of satisfaction.
     b. The Web-based application that collects and stores records of customer satisfaction surveys and allows dealerships to view their data.
     c. Reports that summarize ratings for a specific dealership including a calculation of the average rating across all survey questions and a calculation of summary statistics for groups of questions that correspond to important dimensions such as dealership staff, satisfaction with product, quality of service and so on.
     d. Records containing numerical ratings from customer surveys completed online after each visit to a dealership.

Answer: C
Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Reflective Thinking

28. The terms "data", "information", and "knowledge" have specific meanings. With regard customer satisfaction application used in the automobile industry, which of the following is an example of knowledge?

   a. The ability to create a program that provides rewards for dealerships with high levels of customer satisfaction and corrective action plans for dealerships that have low levels of satisfaction.
   b. The Web-based application that collects and stores records of customer satisfaction surveys and allows dealerships to view their data.
   c. Reports that summarize ratings for a specific dealership including a calculation of the average rating across all survey questions and a calculation of summary statistics for groups of questions that correspond to important dimensions such as dealership staff, satisfaction with product, quality of service and so on.
   d. Records containing numerical ratings from customer surveys completed online after each visit to a dealership.

Answer: A
Difficulty: Hard
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AACSB: Reflective Thinking

29. Which of the following is not a component of the Input-Processing-Output (IPO) model of an Information System?

   a. Application upgrades – financial, marketing, operations
   b. Storage – RAM, flash, cloud
   c. People – users, clients, customers
   d. Communication – Sending results, providing feedback

Answer: A
Difficulty: Medium
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

30. Data from sales orders, payroll, accounting, financial, marketing, purchasing, inventory control, and so forth are processed by a combination of hardware and software called _____ processing systems.

       a. Financial
       b. Enterprise
       c. Transaction
       d. Data

Answer: C
Difficulty: Easy
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

31. Transactions are typically processed either [A] all together for a defined time window (e.g. end of a day or week) or [B] processed as each transaction occurs. The first method [A] is called _____ processing.

       a. Batch
       b. Cluster
       c. Periodic
       d. Real-time

Answer: A
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of information Technology

32. Transactions are typically processed either [A] all together for a defined time window (e.g. end of a day or week) or [B] processed as each transaction occurs. The second method [B] is called _____ processing.

       a. Batch
       b. Cluster
       c. Periodic
       d. Real-time

Answer: D
Difficulty: Easy
Section Reference: Information Systems: The Basics

Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of information Technology

33. A general purpose Information System (IS) designed to provide reports to managers for tracking operations, monitoring and control is _____

      a. DSS
      b. EIS
      c. MIS
      d. JIT

Answer: C
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of information Technology

34. What kind of reports are created and distributed according to a pre-set schedule, such as daily, weekly, or monthly?

      a. Exception reports
      b. Ad hoc reports
      c. Periodic reports
      d. Management reports

Answer: C
Difficulty: Medium
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

35. What kinds of reports are created only when something deviates from the norm?

      a. Exception reports
      b. Ad hoc reports
      c. Periodic reports
      d. Management reports

Answer: A
Difficulty: Medium

Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

36. What kind of reports are unplanned reports and generated on request to learn more about a situation, problem, or opportunity?

        a. Exception reports
        b. Ad hoc reports
        c. Periodic reports
        d. Management reports

Answer: B
Difficulty: Medium
Section Reference: Information Systems: The Basics
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support needed by business operations and decision makers.
AACSB: Use of information Technology

37. Managers use software apps that support decisions that would otherwise take a lot of time to figure out. For instance, these tools can help figure out if a customer qualifies for an auto loan or should receive additional credit. These interactive apps are called _____.

        a. DSS
        b. EIS
        c. MIS
        d. JIT

Answer: A
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of
support needed by business operations and decision makers.
AACSB: Use of information Technology

38. Which of the following was not a key characteristic of a DSS?

        a. Easy-to-use interactive interface
        b. Designed or customized by IT professionals
        c. Models or formulas for sensitivity analysis, *what if* analysis, goal seeking, and risk analysis
        d. Data from internal and external sources

Answer: B
Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of information Technology

39. What key factor differentiates an MIS from a DSS?

    a. A DSS contains models that use information to make decisions.
    b. A DSS is often Web-based, whereas an MIS is restricted to company computers for security reasons.
    c. A DSS consists of software and hardware, whereas an MIS is only software apps.
    d. A DSS is only a software app, whereas an MIS consists of hardware and software.

Answer: A
Difficulty: Hard
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

40. Jay Garcia is a marketing manager at Fire Mouth, a new hot sauce manufacturer. He is using his company's DSS to determine the best price for a new brand of hot sauce called "Fires of Hell". He inputs figures about his costs, price and desired profit and then checks to see what the app tells him his sales volume would need to be based on those factors. As he works on the problem, he changes his assumptions about the input factors and notes how those changes impact the predicted sales volume. Jay is doing _____ analysis.

    a. Input-Output
    b. Factor
    c. Goal seeking
    d. What-if

Answer: D
Difficulty: Medium
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

41. Jackson Stiles is a marketing manager for Rock Hardware. His boss has told him to make sure each product earns at least a 25% net profit margin. When new products come into the store, Jackson enters data into Rock's DSS about the product, shipping and promotional costs associated with carrying the product. The DSS then calculates a target price based on this information. Jackson is using the DSS to conduct a _____ analysis.

       a. Input-Output
       b. Factor
       c. Goal seeking
       d. What-if

Answer: C
Difficulty: Medium
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

42. Given the huge number of transactions, the data in databases are constantly in use and/or undergoing change. This characteristic of databases, referred to as _____, makes it impossible to use them for complex decision making and problem-solving tasks.

       a. Variability
       b. Velocity
       c. Volatility
       d. Volume

Answer: C
Difficulty: Medium
Section Reference: Information Systems: The Basics
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AACSB: Use of information Technology

43. Data in databases are constantly in use or undergoing changes. As a result, it is impossible to use them for complex decision making or problem solving tasks. Which of the following is an appropriate solution to this problem?

       a. Set aside specific time windows each day for halting data changes or new inputs to the database so that decision making or problem solving applications can use the data.
       b. Conduct decision making or problem solving tasks prior to transferring data to the database.

c. Use the database data anyway since the results are better than not conducting any decision or problem solving analysis at all.

d. Extract, transform and load database data into a data warehouse where it can be formatted for further analysis.

Answer: D
Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of information Technology

44. An information system (IS) is part of an organizational culture that consists of:

a. IS, market demands, and technology
b. IS, the company, and competitors
c. IS, business processes, and people
d. IS, company policies, and legal regulations

Answer: C
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Reflective Thinking

45. All of the following are types of IT infrastructures or computing systems except _____.

a. on-premises data centers
b. virtualization
c. cloud computing
d. OLTP

Answer: D
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of information Technology

46. Examples of _____ include data storage and computing hardware that are accessed via the Internet instead of being company-owned and on-site in a data center.

a. TPS

b. DSS
c. Cloud computing
d. Real-time reporting systems

Answer: C
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology

47. A _____ consists of a large number of network servers used for the storage, processing, management, distribution, and archiving of data, systems, web traffic, services, and enterprise applications.

a. Data center
b. Data delivery system
c. Software as a service
d. Virtual network system

Answer: A
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology
48. Cisco's Unified Data Center (UDC) can _____.

a. significantly speed up integration and consolidation of data
b. eliminate data center costs
c. increase data security and complexity
d. run apps on mobile devices

Answer: A
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology

49. Jared is a sales manager at a large company where employees use several cloud apps such as salesforce.com and Google Apps. The company decided to use these apps instead of purchasing apps that would run from their own servers, reducing the cost and complexity associated with their use. Apps like these are known as:

a. Virtual enterprise apps.
b. Enterprise systems
c. Software as a service
d. Mobile apps

Answer: C
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology

50. Companies or government agencies that need greater security and data confidentiality set up their own _____ clouds on servers that they own.

a. Secure
b. Protected
c. Enterprise
d. Private

Answer: D
Difficulty: Easy
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology
51. The greatest strategic advantage of cloud computing solutions is that they _____.

a. Increase agility and ability to quickly implement IT for competitive advantage.
b. Are easier for employees to use because of superior interfaces.
c. Are more secure than traditional software apps.
d. Have more features and functionality than traditional software apps.

Answer: A
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Reflective Thinking

52. While cloud computing offers many benefits, companies should be aware that moving to cloud solutions on a wide scale will _____.

a. Require greater numbers of IT professionals to support the strategy.
b. Create greater reliance on outside consultants or contract employees.

c. Require a significant increase in training or re-training expenses.
d. Require significant increases in network bandwidth.

Answer: D
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Reflective Thinking

53. As companies move toward implementing cloud computing on a wide scale, managers need to consider all of the following strategic questions except _____.

a. Which workloads should be exported to the cloud?
b. What will be the impact of cloud computing on the company's market share and brand image?
c. How to resolve issues of privacy and security as things move out to the cloud?
d. How will departments or business units get new IT resources?

Answer: B
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Reflective Thinking
54. Companies that move to the cloud must negotiate _____, which are contracts that define their relationships with vendors.

a. Service-level agreements
b. Defined services agreements
c. Vendor managed services
d. Cloud Standards

Answer: A
Difficulty: Easy
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of information Technology

55. Which of the following is a potential disadvantage to using cloud services?

a. With cloud computing, it may be more difficult to get to the root of performance problems, like the unplanned outages that sometimes occur with Google's Gmail or Workday's human resources apps.
b. Requires greater numbers of IT professionals to support the strategy.
c. Requires greater reliance on outside consultants or contract employees.
d. Employees might over use applications, leading to higher costs.

Answer: A
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Reflective thinking

56. Issues associated with moving workloads from the enterprise to the cloud include all of the following except _____.

a. Building a cloud strategy is a challenge, and moving existing apps to the cloud is stressful.
b. Greater network bandwidth is needed to support the increase in network traffic.
c. There is the risk of disrupting operations or customers in the process.
d. Managing software and their licenses involves deploying, provisioning, and updating them.

Answer: D
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
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AACSB: Use of information Technology

57. Computer hardware had been designed to run a single operating system and a single app, leaving computers vastly underutilized. One solution to optimizing the use of computing resources is to use one physical machine and specialized software to create multiple _____.

a. Cloud based desktops
b. Simulated desktops
c. Replicated workstations
d. Virtual machines

Answer: D
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization

58. Virtualization separates business applications and data from hardware resources. Which of the following was not a type of virtualization?

   a. *Cloud virtualization* combines SaaS apps from multiple clouds into a single virtual cloud for a seamless computing experience.
   b. *Storage virtualization* is the pooling of physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console.
   c. *Network virtualization* combines the available resources in a network by splitting the network load into manageable parts, each of which can be assigned (or reassigned) to a particular server on the network.
   d. *Hardware virtualization* is the use of software to emulate hardware or a total computer environment other than the one the software is actually running in.

Answer: A
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of information Technology

59. Which of the following is not a benefit of virtualization?

   a. Energy efficient and scalable
   b. More efficient use of data storage
   c. Less memory-intensive
   d. Lower total cost of ownership

Answer: C
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of information Technology

60. The _____ consists of SaaS, PaaS, and IaaS.

   a. virtual machine
   b. cloud computing stack

c. SLA
        d. TCO

Answer: B
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal
risks that they create.
AACSB: Use of information Technology

61. Which of the following is not a way a SaaS provider licenses applications to customers?

        a. through a subscription
        b. based on usage
        c. through a SLA
        d. at no cost when revenue can be generated from advertisement

Answer: C
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal
risks that they create.
AACSB: Use of information Technology

True/False

62. Most business initiatives succeed or fail based on the quality of the underlying data.

Answer: True
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data
quality determines system success or failure.
AACSB: Use of Information Technology

63. To simplify add-ons, upgrades, sharing, and access to information on their personal devices,
    users often leverage cloud services such as iTunes, Instagram, Diigo, and Box.

Answer: True
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data
quality determines system success or failure.

64. Major organizations have fewer than 50 data repositories, which are fully integrated as is users' ability to access all the information they need. .

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

65. Thanks to the availability of computers, mobile devices and ISs, information flowing through companies is almost always available to executives, managers, and workers who no longer struggle to find information they need to make sound decisions or do their jobs.

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

66. Despite the growth of social data, images and web documents, modern IT professionals must continue to place primary emphasis on management of structured, high quality data.

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

67. Information management is critical to data security and compliance with regulatory mandates, such as the Sarbanes-Oxley Act, the USA PATRIOT Act, and HIPAA.

Answer: True
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

68. The blueprints that guide and govern software add-ons, upgrades, hardware, systems, networks, cloud services, and other IT are known as cloud services.

Answer: False
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

69. Information management must also deal with information degradation and disorder—where people do not understand what data means or how it can be useful.

Answer: True
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

70. The term "data structures" refers to the speed at which data it is captured, analyzed, and reported.

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

71. Data silos are unable to share or exchange data, and as a result they cannot be updated consistently.

Answer: True
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

72. Data can get lost in transit from one IS to another.

Answer: True

Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

73. Apps that combine data from multiple internal and public sources and publish the results to enterprise portals, dashboards, or the cloud are commonly referred to as "complex mashups".

Answer: False
Difficulty:
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

74. Data (or information) silos are ISs that do not have the capability to exchange data with other ISs making timely coordination and communication across functions or departments difficult.

Answer: True
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

75. The overall goal of information management is to reduce costs and maintain high standards of information security by setting strict guidelines for access.

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

76. Tracking tweets, YouTube hits, and other human information requires expensive investments—which managers find risky in an economic downturn.

Answer: True
Difficulty: Easy
Section Reference: Information Management

Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

77. One way for larger companies to effectively manage information across an organization is to require each division or business unit to implement and manage its own IS because unit managers understand their information needs better than people in other parts of the organization.

Answer: False
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

78. Most health care organizations are drowning in data, yet cannot get reliable, actionable insights from this data. Information from physician notes, registration forms, and discharge summaries often go unused or are difficult for administrators and mangers to access because the information is trapped in data silos.

Answer: True
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

79. Senior executives and managers know about their data silos and information management problems, but they also know about the huge cost and disruption from converting to newer IT architectures.

Answer: True
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

80. KPIs are metrics that define and measure business processes to insure they stay under budget.

Answer: False

81. Success of EA is measured in financial terms of profitability and ROI. In contrast, the success of data governance is measured in nonfinancial terms of improved customer satisfaction, faster speed to market, and lower employee turnover.

Answer: False
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Reflective Thinking

82. It is no longer feasible to manage big data, content from mobiles and social networks, and data in the cloud without the well-designed set of plans, or blueprint, provided by EA.

Answer: True
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

83. EA is needed when IT systems have become unmanageably complex and expensive to maintain.

Answer: True
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

84. A data governance program should be an IT project because data crosses boundaries and is used by people throughout the enterprise.

Answer: False
Difficulty: Medium

Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

85. Governance cuts the cost of maintaining and archiving bad, unneeded, or wrong data.

Answer: True
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

86. In the financial services sector, strict reporting requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 are leading to greater use of data governance.

Answer: True
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

87. Meta data is defined as the consistent and uniform data within an enterprise that describes their key entities such as customers, products and services, vendors, locations, and employees around which business is conducted.

Answer: False
Difficulty: Easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Reflective Thinking

88. In an organization, there may be a culture of distrust or political conflicts between the technology and business folks, which are resolved with data governance.

Answer: False
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.

89. To maintain a balance between costs and benefits, it is advised that managers generally add storage, applications, and/or databases on an "as needed" basis.

Answer: False
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

90. Data collected by the TPS are converted into reports by the MIS and analyzed by the DSS to support decision making.

Answer: True
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

91. A TPS in OLTP mode collects all transaction for a day, shift, or other time period, and then processes the data and updates the databases.

Answer: False
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

92. Decision support systems are interactive applications that support highly structured decision making scenarios.

Answer: False
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

93. ISs do not exist in isolation, but rather exist within an organizational culture.

Answer: True
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

94. A company's application architecture describes the hardware and software infrastructure that supports applications and their interactions.

Answer: False
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

95. On-premises data centers, virtualization, and cloud computing are types of IT infrastructures or computing systems.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

96. The National Climatic Data Center is an example of a public data center that stores and manages the world's largest archive of weather data.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

97. The NSA's data center in Bluffdale, Utah is its largest spy data center where information from Google, Facebook, and Apple are stored.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

98. A data center is designed and built to be scalable so the amount of storage and the workload it can handle changes without purchasing and installing more equipment.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

99. Using virtualization methods, enterprises can respond to change more quickly and make better decisions in real time without physically moving their data, which significantly cuts costs.

Answer: True
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

100. Because cloud is still a relatively new and evolving business model, the decision to select a cloud service provider should be approached with even greater diligence than other IT decisions.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

101. A typical SLA in an informal agreement that describes levels of service using various attributes such as: availability, serviceability, performance, operations, billing, but not penalties associated with violations of such attributes.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

102.   A main difference between a cloud and a data center is that a cloud is an off-premise form of computing that stores data on the Internet.

Answer: True
Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

103.   Public clouds are single-tenant environments with stronger security and control for regulated industries and critical data.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

104.   Software as a service (SaaS) apps are typically accessed over a network using a Web browser (no hardware or software to install) and paid for by a fixed subscription fee or on a per-use basis.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

105.   Cloud computing solutions are growing in popularity with organizations because they reduce the burden of deploying, provisioning, and updating software apps.

Answer: True

Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

106.   Companies or government agencies that need greater security and data confidentiality set up their own clouds on servers that they own. These are called protected clouds.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

107.   The greatest strategic advantage of cloud computing solutions is that they are typically more secure than traditional software apps.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

108.   Cloud solutions typically require less bandwidth and place fewer demands on the organization's network or wide area network (WAN), reducing the risk of downtime.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

109.   Virtualization is a technique that creates a virtualization layer and multiple virtual machines (VM) that run on a single physical machine.

Answer: True
Difficulty: Easy
Section Reference: Data Centers, Cloud Computing, and Virtualization

110.   Virtual machines (VM) are specialized apps for designing and testing 3 Dimensional products such as trucks, cars, and mechanical devices.

Answer: False
Difficulty: Easy
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

111.   Storage virtualization is the pooling of physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

112.   Network virtualization combines the available resources in a network by splitting the network load into manageable parts, each of which can be assigned (or reassigned) to a particular server on the network.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

113.   Storage virtualization combines the available resources in a network by splitting the network load into manageable parts, each of which can be assigned (or reassigned) to a particular server on the network.

Answer: False
Difficulty: Hard

114.   A key benefit of virtualization is energy efficiency – up to a 20% reduction in energy use per server.

Answer: False
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

115.   A key benefit of virtualization is a reduction in the total cost of ownership – a VM costs 75% less to operate than a physical server over a 3 year period.

Answer: True
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

116.   Sustaining performance requires the development of new business apps and analytics capabilities, which comprise the *front-end*—and the data stores and digital infrastructure, or backend, to support them. The back end is where the data resides.

Answer: True
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

117.   In the cloud computing stack, a service provider hosts the application at its data center and customers access it via a standard Web browser.

Answer: False
Difficulty: Medium
Section Reference: Cloud Services Add Agility

118. A SaaS provider licenses an application to customers either on demand, through a subscription, based on usage, or increasingly at no cost when there is opportunity to generate revenue from advertisement or other method.

Answer: True
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

119. *Salesforce.com* is one of the most widely known PaaS providers.

Answer: False
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

120. IaaS providers are Amazon Web Services (AWS) and Rackspace.

Answer: True
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

121. A legal risk of at-a-service models, such as SaaS and PaaS, is that they can trigger lawsuits.

Answer: True
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

Short Answer

122.   One of the federal regulations that require data governance is _____.

Answer: Possible answers: Sarbanes-Oxley Act, Basel III, the Computer Fraud and Abuse Act (CFAA), the USA PATRIOT Act, or the Health Insurance Portability and Accountability Act (HIPAA)
Difficulty: Hard
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

123.   Blueprints that guide and govern software add-ons, upgrades, hardware, systems, networks, cloud services, and other IT are known as _____.

Answer: IT architectures, or enterprise architectures
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

124.   The term _____ refers to how information is stored and organized; and the speed at which it is captured, analyzed, and reported.

Answer: Information management
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

125.   _____ do not have the capability to exchange data with other ISs making timely coordination and communication across functions or departments difficult.

Answer: Data (or information) silos
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

126.   Most health care organizations are drowning in data, yet cannot get reliable insights from this data. Information from physician notes and documents often go unused or are difficult for administrators and mangers to access because the information is trapped in_____.

Answer: Data silos
Difficulty: Easy
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Use of Information Technology

127.   _____are metrics that define and measure progress toward organizational goals—and deviations from those goals.

Answer: KPIs or key performance indicators
Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

128.   _____ is the process of creating and agreeing to standards and requirements for the collection, identification, storage, and use of data.

Answer: Data governance
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

129.   _____ is defined as the consistent and uniform data within an enterprise that describes their key entities such as customers, products and services, vendors, locations, and employees.

Answer: Master data
Difficulty: Medium
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

130.   Compared to transactional data, master data are quite_____ because they change infrequently.

Answer: stable
Difficulty: easy
Section Reference: Enterprise Architecture and Data Governance
Learning Objective: Describe how enterprise architecture (EA) and data governance play leading roles in guiding IT growth and sustaining long-term performance.
AACSB: Use of Information Technology

131.   _____ has been processed, organized, or put into context so that it has meaning and value to the person receiving it.

Answer: Information
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

132.   Data from sales orders, payroll, accounting, financial, marketing, purchasing, inventory control, and so forth are processed by a combination of hardware and software called _____.

Answer: Transaction Processing Systems (TPS)
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

133.   Payroll transactions are processed together using _____ processing

Answer: Batch
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

134. Financial and airline reservations systems use _____ processing.

Answer: Real-time
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

135. A _____ is a general purpose IS designed to provide reports to managers for tracking operations, monitoring and control.

Answer: Management Information System (MIS)
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

136. A _____ is an interactive application that aids managers in making decisions that would otherwise require a great deal of time to figure out.

Answer: Decision Support System (DSS)
Difficulty: Easy
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

137. The central feature of a _____ is a model or formula that enables sensitivity analysis, what-if analysis, goal seeking, and/or risk analysis.

Answer: Decision Support System (DSS)
Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

138. The functional difference between a DSS and an MIS is that a DSS contains models that use information to make decisions while an MIS is used to create _____ from data.

Answer: Reports
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

139. An Information System (IS) is part of an organizational culture that consists of the IS, business processes, and _____.

Answer: People
Difficulty: Medium
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Use of Information Technology

140. _____ apps are typically accessed over a network using a Web browser (no hardware or software to install) and paid for by a fixed subscription fee or on a per-use basis.

Answer: Software as a service (SaaS)
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

141. _____ solutions are growing in popularity with organizations because they reduce the burden of deploying, provisioning, and updating software apps.

Answer: Cloud computing
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

142. Companies or government agencies that need greater security and data confidentiality set up their own clouds on servers that they own. These are called _____.

Answer: Private clouds
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

143. The greatest strategic advantage of cloud solutions is that they increase an organization's _____, or ability to quickly implement IT for competitive advantage.

Answer: Agility
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Reflective Thinking

144. _____ serve as the formal or informal contract or agreement defining the relationships between an organization and a vendor (supplier of cloud services).

Answer: Service-level agreements (SLA)
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

145. _____ is a technique that creates a virtualization layer and multiple virtual machines (VM) that run on a single physical machine.

Answer: Virtualization
Difficulty: Easy
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

146.   _____ virtualization is the pooling of physical storage from multiple network storage devices into what appears to be a single storage device that is managed from a central console.

Answer: Storage
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

147.   _____ virtualization combines the available resources in a network by splitting the network load into manageable parts, each of which can be assigned (or reassigned) to a particular server on the network.

Answer: Network
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

148.   _____virtualization is the use of software to emulate hardware or a total computer environment other than the one the software is actually running in.

Answer: Hardware
Difficulty: Medium
Section Reference: Data Centers, Cloud Computing, and Virtualization
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149.   The cloud computing _____ consists of SaaS, PaaS, and IaaS.

Answer: stack
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
AACSB: Use of Information Technology

150.   Service arrangements all require that managers understand the benefits and trade-offs—and how to negotiate effective contracts or _____.

Answer: SLAs
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
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151.   To achieve the benefits of going to the cloud, there must be IT, _____, and senior management oversight because a company still must meet its obligations and responsibilities to employees, customers, investors, business partners, and society.

Answer: legal
Difficulty: Medium
Section Reference: Cloud Services Add Agility
Learning Objective: Explain the range of cloud services, their benefits, and business and legal risks that they create.
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Essay Questions

152.   What is a data (or information) silo? What are the primary causes of data silos and why do they interfere with effective organizational operations?

Answer:

Data (or information) silos are ISs that do not have the capability to exchange data with other ISs making timely coordination and communication across functions or departments difficult. Data silos exist when:
- there's no overall IT architecture to guide IS investments,
- poor data coordination, and
- poor communication across the organization regarding information strategy

Data silos support a single function, and as a result, do not support an organization's cross-functional needs.

Difficulty: Hard
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

153.   List and explain two primary causes of information deficiencies in organizations.

Answer:
Answers will vary.
- Data Silos – ISs that contain data that is not accessible by other ISs in the organization. In effect, data become "trapped" in data silos.
- Lost or Bypassed Data – Data can get lost in transit from one IS to another or data might fail to get captured in the first place because of inadequately tuned data collection systems.
- Non-standardized Data – Deficiencies can occur when various units in a company format data differently. For instance, one division might report weekly gross sales revenues per product line and another division reports monthly net sales per product.   These situations can make data analysis and comparisons difficult or impossible and increase the risk of errors.
- User-Fierce Interfaces - Poorly designed interfaces or formats that require extra time and effort to figure out increase the risk of errors from misunderstanding the data or ignoring it.
- IT is a moving target - The information that decision makers want keeps changing—and changes faster than ISs can respond to because of the first four reasons in this list. .

Difficulty: Medium
Section Reference: Information Management
Learning Objective: Explain the business benefits of information management and how data quality determines system success or failure.
AACSB: Reflective Thinking

154.   Imagine that a national chain of grocery stores regularly administers customer satisfaction surveys and analyzes the results to evaluate the performance of individual store locations. Briefly give an example or description of the data, information, and knowledge that would result from these surveys.

Answer:
- Data in this example would be the ratings and/or comments from the surveys stored in a computer file and available for analysis.

- Information in this example would come from reports that summarize an analysis of the data. For instance, the report might contain a calculation of average ratings, a summary of comments, as well as a description of the implications or conclusions that can be made based on the analysis.

- Knowledge in this example would exist when managers use the information from the surveys, along with information from other sources or past experience and apply it to some action. For instance, management may decide to create a bonus plan that rewards store managers with high customer satisfaction ratings or put new managers in charge of

stores with low customer satisfaction ratings. They may develop a strategic plan designed to help all stores reach a target level of customer satisfaction.

Difficulty: Hard
Section Reference: Information Systems: The Basics
Learning Objective: Map the functions of various types of information systems to the type of support needed by business operations and decision makers.
AACSB: Reflective Thinking

155.   List four service factors to consider when evaluating cloud vendors or service providers. For each service factor, give an example of a question to be addressed with the vendor or service provider.

Answer:

Factors	Examples of questions to be addressed
Delays	What are the estimated server delays and network delays?
Workloads	What is the volume of data and processing that can be handled during a specific amount of time?
Costs	What are the costs associated with workloads across multiple cloud computing platforms?
Security	How are data and networks secured against attacks? Are data encrypted and how strong is the encryption? What are network security practices?
Disaster recovery and business continuity	How is service outage defined? What level of redundancy is in place to minimize outages including backup services in different geographical regions? If a natural disaster or outage occurs, how will cloud services be continued?
Technical expertise and understanding	Does the vendor have expertise in your industry or business processes? Does the vendor understand what you need to do and have the technical expertise to fulfil them?
Insurance, in case of failure	Does the vendor provide cloud insurance to mitigate user losses in case of service failure or damage? This is a new and important concept.
Third-party audit, or an unbiased assessment of the ability to rely on the service provided by the vendor.	Can the vendor show objective proof with an audit that they can live up to the promises they are making?

Difficulty: Hard
Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Reflective Thinking

156.   List and describe three key benefits of virtualization.

Answer:

- Energy-efficiency. Virtualization minimizes energy consumed running and cooling servers in the data center—up a 95 percent reduction in energy use per server.
- Scalability and load balancing. Virtualization provides load balancing to handle the demand for requests to the site. The VMware infrastructure automatically distributes the load across a cluster of physical servers to ensure the maximum performance of all running VMs.
- Total cost of ownership. Because virtualization reduces the number of physical servers required, reduces the amount of space taken up by servers and saves energy costs, over a three-year lifecycle, a VM costs approximately 75 percent less to operate than a physical server.

Difficulty: Hard
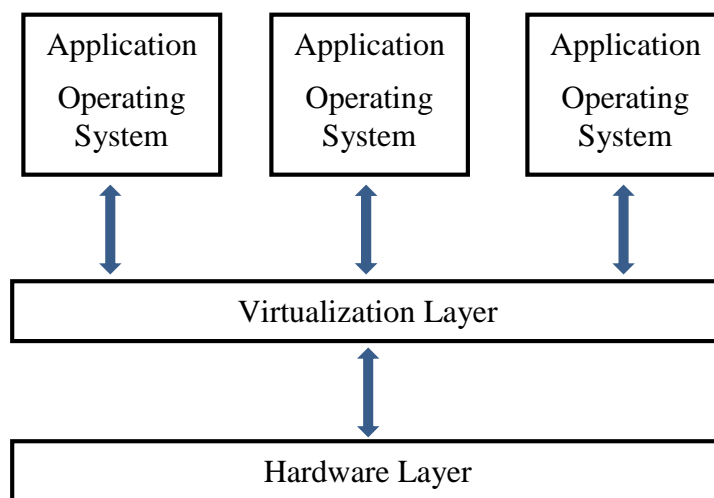Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology

157.   Briefly define virtualization. Draw a simple diagram of how virtualization is used to create virtual machines. Your diagram should include: an application layer, a virtualization layer, and a hardware layer.

Answer:

Virtualization is a technique that creates a virtualization layer and multiple virtual machines (VM) to run on a single physical machine. The virtualization layer makes it possible for each VM to share the resources of the hardware.

Difficulty: Hard

Section Reference: Data Centers, Cloud Computing, and Virtualization
Learning Objective: Describe the functions of data centers, cloud computing, and virtualization and their strengths, weaknesses, and cost considerations.
AACSB: Use of Information Technology