TEST BANK

INFORMATION TECHNOLOGY
FOR MANAGEMENT

Improving Strategic and Operational Performance

8th Edition

TURBAN / VOLONINO

Chapter: Chapter 02 Infrastructure and Support Systems

Multiple Choice

1. _____ is the collection of hardware, software, processes, networks, and users.
a) IT infrastructure
b) IT function
c) Transaction processing system
d) MIS

Ans: a
Difficulty: Easy
Section Ref: *Quick Look* at Chapter 2
AACSB:

2. A transaction processing system (TPS):
a) processes raw data.
b) does reporting.
c) extracts, transforms, and loads data.
d) does advanced data analysis.

Ans: a
Difficulty: Medium
Section Ref: *Quick Look* at Chapter 2
AACSB:

3. The number of hours an employee worked in a certain week is an example of:
a) information.
b) a transaction.
c) knowledge.
d) data.

Ans: d
Difficulty: Easy
Section Ref: 2.1 Data and Software Application Concepts
AACSB: Reflective thinking skills

4. _____ is data that has been processed, organized, or put into context so that it has meaning and value to the person receiving it.
a) Information
b) A transaction
c) Knowledge
d) A report

Ans: a
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

5. _____ consists of data that have been processed, organized, and put into context to be meaningful, and to convey understanding, experience, accumulated learning, and expertise.
a) Information
b) A transaction
c) Knowledge
d) Wisdom

Ans: c
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

6. Managing a product recall in a way that minimizes negative impacts on sales of other products and profits is an example of:
a) data.
b) information.
c) knowledge.
d) decision.

Ans: c
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB: Reflective thinking skills.

7. A _____ consists of stored data organized for access, search, retrieval, and update.
a) file
b) database

c) TPS
d) system

Ans: b
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

8. Why are TPSs critical systems?
a) Data need to be analyzed and reported to managers to support their decision making processes.
b) Manual systems are subject to too much human error.
c) Transactions that do not get captured can result in lost sales, dissatisfied customers, and other types of data errors.
d) They are essential components of process control systems.

Ans: c
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Reflective thinking skills.

9. Processing of transactions is done in one of two modes:
a) batch and real-time.
b) online and offline.
c) manual and computerized.
d) online and real-time.

Ans: a
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

10. Which of the following is an advantage of batch processing over online transaction processing?
a) higher data quality
b) costs less
c) more up-to-date data
d) a and b

Ans: b
Difficulty: Medium

11. If a customer sets up an account with REI.com to purchase from their Web site, the
_____ will validate that the address, city, and postal code are consistent and valid in order
to improve _____.
a) OLTP; data storage
b) OLTP: data visibility
c) TPS; data quality
d) TPS; data transfer

Ans: c

12. Data errors:
a) are difficult to correct the later they are detected.
b) expose the company to legal action.
c) may never be detected and corrected.
d) all of the above

Ans: d

13. Victims of identity theft face enormous challenges and frustration because:
a) data errors detected later are difficult to correct.
b) data processing does not improve data quality.
c) data processing is done in real-time.
d) data processing cannot detect obvious data errors.

Ans: a

14. Which of the following is not an example of a routine business transaction for a manufacturing company?
a) purchase orders
b) payroll
c) consolidation
d) billing

Ans: c
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Reflective thinking skills.

15. General purpose reporting systems are referred to as _____ systems.
a) management information
b) decision support
c) operational
d) transactional

Ans: a
Difficulty: Easy
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

16. Which of the following is not an objective of MIS?
a) to provide reports to managers for tracking operations
b) to provide reports to managers for monitoring
c) to provide reports to managers for control
d) to provide reports to managers for strategic planning

Ans: d
Difficulty: Easy
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

17. _____ reports are created or run according to a pre-set schedule, such as daily, weekly, or quarterly.
a) Periodic
b) Exception
c) Ad hoc
d) Functional

Ans: a
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

18. Sales of fresh produce drop during an E. coli food contamination crisis. What type of reports would be generated in this unique situation?
a) Periodic
b) Exception
c) Ad hoc
d) Functional

Ans: b
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Reflective thinking skills.

19. Sony's managers notice a significant change in demand for the company's eReaders. They request that reports be generated so they can learn more about this situation. What is this type of report?
a) Periodic
b) Exception
c) Ad hoc
d) Functional

Ans: c
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Reflective thinking skills.

20. Decision support systems are _____ that support unstructured and semi-structured decision making.
a) interactive applications
b) reporting applications
c) operations support systems
d) process control systems

Ans: a
Difficulty: Easy

21. Deciding which new products to develop or which new markets to enter are examples of
_____ decisions because they depend on human intelligence, knowledge, and/or
experience.
a) structured
b) semistructured
c) unstructured
d) routine

Ans: c
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

22. Decision makers manipulate models in a DSS to perform _____ analysis, which refers
to changing assumptions or data in the model to see the impacts of those changes on the
outcome.
a) goal seeking
b) experimental
c) structured
d) what-if

Ans: d
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

23. A _____ is a visual presentation of critical data, such as the results of a report or
analysis, to more quickly understand data.
a) dashboard
b) GUI
c) touch screen
d) KPI

Ans: a
Difficulty: Easy
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

24. _____ is a computerized process for conducting searches in large amounts of data and information in order to discover unknown valuable relationships in the data.
a) Drill down
b) Data mining
c) Business mining
d) Data analytics

Ans: b
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

25. _____ is the science concerned with managing material and information flows to optimize supply chain operations.
a) Database management
b) Process control
c) Logistics
d) Sourcing

Ans: c
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB:

26. A company's competitive advantage, such as low cost, quality, and/or speed to market, depends on:
a) how well its supply chain is aligned and managed.
b) minimizing the physical flows of its products.
c) how well it maximizes its global sourcing.
d) its ability to recycle.

Ans: a
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB: Dynamics of the global economy

27. Because Wal-Mart has thousands of suppliers to manage and is constantly looking for new ones worldwide, they invested in a new _____ strategy.
a) mobile networking
b) global sourcing
c) global support
d) mobile support

Ans: b
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB: Dynamics of the global economy

28. Wal-Mart's global sourcing strategy is designed:
a) to reduce costs of goods, increase speed to market, and improve the quality of products.
b) to identify and evaluate marketing opportunities.
c) to increase production efficiency.
d) to process transactions in real-time.

Ans: a
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB: Dynamics of the global economy

29. By linking a company with its suppliers, vendors, and customers, the supply chain creates _____.
a) logistics inefficiencies
b) automated distribution centers
c) an extended enterprise
d) a warehouse control system

Ans: c
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB: Use of information technology

30. RFID is a technology that uses _____ instead of _____ to identify products or pallets.
a) electronic tags; bar codes
b) electronic tags; chips
c) bar codes; PINs

d) PINs; EPC tags

Ans: a
Difficulty: Easy
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB:

31. Which of the following best describes RFID implementation?
a) RFID systems are frequently implemented as stand-alone systems.
b) RFID implementation has been slow due to costs, privacy, and security concerns.
c) RFID implementations are used only to track products and pallets.
d) RFID implementation has been rapid and widespread for security reasons.

Ans: b
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB:

32. When employees log into the company network or e-mail accounts, or access data or documents to perform their jobs, two critical factors impacting their productivity are:
a) password strength and availability of mobile networks.
b) cloud computing and software applications.
c) virtualization and private clouds.
d) speed of the response and the reliability of the hardware.

Ans: d
Difficulty: Hard
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

33. A company's _____ determines the workload that its ISs, apps, and mobile computing devices can handle and their speed.
a) TPS
b) network access point
c) IT infrastructure
d) firewall

Ans: c
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services

34. IT infrastructure is the collection of:
a) hardware and software.
b) hardware, software, and networks.
c) hardware, software, networks, and mobile devices.
d) hardware, software, processes, networks, and users.

Ans: d
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

35. To improve the performance and ability to store, protect, and manage data at lower up-front costs, companies are turning to _____ options.
a) cloud computing
b) mainframe
c) visualization
d) data center

Ans: a
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

36. _____ is the term used to refer to the Internet.
a) Shadow
b) Cloud
c) Tag
d) Chain

Ans: b
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

37. The general name for Internet-based infrastructures is _____.
a) social networking

b) cloud computing
c) Web 1.0
d) Web 2.0

Ans: b
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

38. The U.S. Department of Defense implemented _____ to service many military agencies in order to reduce IT infrastructure costs while protecting its sensitive data.
a) RFID
b) cloud computing
c) a private cloud
d) virtualization

Ans: c
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

39. Which of the following represents the evolution to Internet-based infrastructure?
a) public cloud computing; private cloud computing; virtualization
b) wired; wireless; mobile computing
c) virtualization; cloud computing; enterprise computing
d) virtualization; private cloud computing; cloud computing

Ans: d
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

40. Which of the following statements about virtualization is false?
a) Virtualization is primarily about cost-cutting.
b) Virtualization is often a key part of an enterprise's disaster recovery plan.
c) Virtualization separates business applications and data from hardware resources to pool hardware resources.
d) Virtualization increases the flexibility of IT assets, allowing companies to consolidate IT infrastructure.

41. Large companies and government agencies with multiple locations may set up _____
on servers that they own if data confidentiality is a key requirement.
a) public clouds
b) private clouds
c) encrypted clouds
d) social clouds

Ans: b
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

42. Cloud computing is Internet-based computing in which shared resources, such as hard drives
and software apps, are provided to computers and other devices _____, like a public
utility.
a) in batch
b) via mobile networks
c) on-demand
d) via SaaS

Ans: c
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

43. All of the following are characteristics of software-as-a-service (SaaS) except:
a) SaaS is an increasingly popular IT model for large but not small companies in which software
is available to users as needed.
b) The SaaS model was developed to overcome the challenge to an enterprise of being able to
meet fluctuating demands on IT resources efficiently.
c) Other terms for SaaS are on-demand computing, utility computing, and hosted services.
d) Usually there is no hardware and software to buy since the apps are used over the Internet and
paid for through a fixed subscription fee, or payable per an actual usage fee.

Ans: a

Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

44. What is a disadvantage of cloud computing?
a) It may be more difficult to get to the root of IT infrastructure performance problems.
b) It is higher cost than company-owned IT infrastructures.
c) There is more control than with company-owned IT infrastructures.
d) Service-level agreements (SLAs) with vendors are not necessary.

Ans: b
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

45. Which of the following is a major cloud computing vendor?
a) Amazon's EC2
b) Google's AppEngine
c) Microsoft's Azure
d) All of the above

Ans: d
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

True/False

46. Business software applications are hardware devices that support a specific task or business process.

Ans: false
Difficulty: Easy
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

47. Multiple business apps form a system that supports a functional area--marketing, finance, human resources, production, operations, accounting, and IT.

Ans: true
Difficulty: Easy
Section Ref: 2.1 Data and Software Application Concepts
AACSB: Use of information technology

48. To track attendance at basketball games, the Dallas Mavericks put RFID codes on tickets, which enabled them to assess the effectiveness of their marketing efforts.

Ans: false
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB: Use of information technology

49. The U.S. Army enlists video games and virtual worlds to teach soldiers interpersonal skills, cultural awareness, and negotiation skills that are heavily dependent on culture for combat in foreign environments.

Ans: true
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB: Dynamics of the global economy

50. Knowing how to manage a vehicle recall to minimize negative impacts on new vehicle sales is an example of information.

Ans: false
Difficulty: Medium
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

51. Data is the raw material from which information is produced; and the quality, reliability and integrity of the data must be maintained for the information to be useful.

Ans: true
Difficulty: Easy

52. The quarterly sales of new Toyota vehicles from 2008 through 2010 is knowledge because it would give some insight into how the vehicle recalls during 2009 and 2010 impacted sales.

53. Transaction processing systems (TPSs) process specific types of data input from ongoing transactions. TPSs can be manual or automated.

54. Decision support systems are critical systems because transactions that do not get captured can result in lost sales, dissatisfied customers, and many other types of data errors.

55. Transaction data that are captured by a TPS are always processed in real-time, stored in a database, and then are available for use by other information systems.

56. Payroll processing is typically done in batch mode; while e-commerce transactions are processed in real-time.

Ans: true
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

57. When a customer sets up an account with Newegg.com to purchase from their Web site, the TPS validates that the address, city, and postal code are correct and consistent to insure data quality.

Ans: true
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

58. DSSs support unstructured and semi-structured decisions, such as whether to make or buy products, or what new products to develop and introduce into existing markets.

Ans: true
Difficulty: Easy
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

59. Supply chains can be grossly inefficient unless the companies in the supply chain can share data, collaborate, and respond to changes in demand and do so efficiently and quickly.

Ans: true
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support
AACSB: Use of information technology

60. Business intelligence (BI) increases the flexibility of IT assets, allowing companies to consolidate IT infrastructure, reduce maintenance and administration costs, and prepare for strategic IT initiatives.

Ans: false

Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

Short Answer

61. In order for _____ or real-time processing to occur, the input device or Web site must be directly linked via a network to the TPS.

Ans: online transaction processing (OLTP)
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

62. Processing improves _____, which is important because reports and decisions are only as good as the data they are based upon.

Ans: data quality
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

63. _____ is a computerized process for conducting searches in large amounts of data and information in an attempt to discover unknown valuable relationships in the data.

Ans: Data mining
Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB:

64. _____ involves identifying sellers that could provide a retailer, such as Wal-Mart, with products or services to sell in their stores and online.

Ans: Sourcing
Difficulty: Medium
Section Ref: 2.3 Supply Chain and Logistics Support

65. _____ is the collection of hardware, software, processes, networks, and users.

Ans: IT infrastructure
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

66. The _____, which is the term used to refer to the Internet, has greatly expanded the options for enterprise IT infrastructures.

Ans: cloud
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

67. Cloud computing evolved from _____, which is an approach based on IT consolidation that enables more flexible IT infrastructures and lower IT costs.

Ans: virtualization
Difficulty: Hard
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

68. With _____, instead of buying and installing expensive packaged enterprise applications, users can access software apps over a network, with an Internet browser being the only absolute necessity.

Ans: Software-as-a-Service (SaaS)
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

69. Large companies or government agencies with multiple locations can set up their own _____ on servers that they own if data confidentiality is a key requirement and they want to reduce IT infrastructure costs.

Ans: private clouds
Difficulty: Easy
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB:

70. _____ 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.

Ans: Storage virtualization
Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

Essay

71. Define data, information, and knowledge. Give an example of each.

Ans: **Data** refers to a basic description of products, customers, events, activities, and transactions that are recorded, classified, and stored. Examples are the number of hours an employee worked in a certain week or the number of new Toyota vehicles sold in the first quarter of 2010.
Information is data that has been processed, organized, or put into context so that it has meaning and value to the person receiving it. For example, the quarterly sales of new Toyota vehicles from 2008 through 2010 is information because it would give some insight into how the vehicle recalls during 2009 and 2010 impacted sales.
Knowledge consists of data and/or information that have been processed, organized, and put into context to be meaningful, and to convey understanding, experience, accumulated learning, and expertise as they apply to a current problem or activity. Knowing how to manage a vehicle recall to minimize negative impacts on new vehicle sales is an example of knowledge.
Difficulty: Easy
Section Ref: 2.1 Data and Software Application Concepts
AACSB:

72. What are the three defining characteristics of DSSs?

Ans: Three defining characteristics of DSSs are:
- an easy-to-use interactive interface
- models that enable sensitivity analysis, what if analysis, goal seeking, and risk analysis
- data from internal databases, external sources, and added by the decision maker who may have insights relevant to the decision situation.

Difficulty: Medium
Section Ref: 2.2 Types of Information Systems and Support
AACSB: Use of information technology

73. What is an advantage of virtualization? List and explain one type of virtualization.

Ans: Virtualization increases the flexibility of IT assets and reduces maintenance and administration costs. Major types of virtualization are:

- *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.

- *Network virtualization* combines network resources by splitting the network load into manageable parts, each of which can be assigned to a particular server on the network.

- *Hardware virtualization* is the use of software to emulate hardware or a total computer environment.

Difficulty: Hard
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

74. Why would organizations use cloud computing during tough economic times?

Ans: Optimizing IT infrastructure became especially important during tough economic times when cost-cutting became a priority. During challenging times, making the most of IT assets becomes imperative for competitive advantage, and ultimately, survival. The cloud typically offers a steep drop in IT costs because applications are hosted by vendors and provided on demand, rather than via physical installations or seat licenses. This rental arrangement with vendors is a key characteristic of cloud computing.

Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology

75. When making decisions about how to acquire IT infrastructure components, what are two IT infrastructure characteristics that need to be considered? Explain each characteristic.

Ans: When making decisions about how to acquire IT infrastructure components, characteristics that need to be considered are:

- Dependable. Dependability means that the infrastructure meets availability, reliability, and scalability requirements of the company's information systems and applications.

- Manageable. IT infrastructure determines the complexity of managing hardware and software required to deliver dependable applications.

- Adaptable. When additional application capacity is needed, organizations are able to scale up the infrastructure as needed.

- Affordable. In today's economic conditions, dependability, manageability, and adaptability are often not as important as the company's ability to pay for it.

Difficulty: Medium
Section Ref: 2.4 IT Infrastructures, Cloud Computing, and Services
AACSB: Use of information technology