**TEST BANK**

**CHAPTER 2: LOGISTICS AND INFORMATION TECHNOLOGY**

**Multiple Choice Questions (correct answers are bolded)**

1. Which of the following is not a benefit to utilizing information in logistics?

      a. greater knowledge and visibility across the supply chain
      b. greater awareness of customer demand via point-of-sale data
      c. better coordination of manufacturing, merchandising, and distribution through enterprise resource planning (ERP) tools
      d. **lower costs**

[LO 2.1:  To explain the importance of effective and efficient utilization of information for logistics management; Difficult; Synthesis; AACSB Category 3:  Analytical thinking]

2. How do data and information differ?

      a. Data are a body of facts in a format suitable for decision making whereas information is simply facts.
      b. Data and information are the same.
      c. **Data are simply facts; information is a body of facts in a format suitable for decision making.**
      d. Data are associated with decision support systems; information is associated with enterprise resource planning (ERP) systems.

[LO 2.1:  To explain the importance of effective and efficient utilization of information for logistics management; Difficult; Synthesis; AACSB Category 3:  Analytical thinking]

3. _____ refers to the collection of large amounts of near-real-time data collected through a variety of sources such as sensors and smart phones.

      a. Cloud computing
      b. **Big data**
      c. Data warehousing
      d. Decision support systems

[LO 2.1:  To explain the importance of effective and efficient utilization of information for logistics management; Easy; Concept; AACSB Category 3:  Analytical thinking]

4. _____ provide effective ways to process organizational business data, to perform calculations, and to create documents.

      a. Enterprise resource planning (ERP) systems
      b. Transaction processing systems

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c. Decision support systems
d. **Office automation systems**

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Concept; AACSB Category 3: Analytical thinking]

5. The most relevant general software package for logisticians is _____.

a. **spreadsheets**
b. word processing
c. presentation packages
d. email

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Application; AACSB Category 3: Analytical thinking]

6. _____ help various stakeholders—employers, suppliers, customers—work together by interacting and sharing information in many different forms.

a. Decision support systems
b. **Communication systems**
c. Office automation systems
d. Transaction processing systems

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Concept; AACSB Category 3: Analytical thinking]

7. What has emerged as the measuring stock for logistics information technology in the twenty-first century?

a. Facebook
b. the Internet
c. **wireless communication**
d. enterprise resource planning (ERP) systems

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

8. Which of the following refers to a network of satellites that transmits signals that pinpoint the exact location of an object?

a. **Global positioning systems (GPS)**
b. Cloud computing
c. Internet of things
d. Electronic data interchange (EDI)

9. Electronic data interchange (EDI) represents what general type of information management system?

       a. communication system
       b. **transaction processing system**
       c. decision support system
       d. office automation system

10. _____ refers to the computer-to-computer transmission of business data in a structured format.

       a. Big data
       b. Enterprise resource planning (ERP) systems
       c. **Electronic data interchange (EDI)**
       d. Data mining

11. Automatic identification systems are an essential component in _____.

       a. every warehouse
       b. **point-of-sale systems**
       c. a logistics information system (LIS)
       d. dual distribution

12. The most popular automatic identification system currently in use is _____.

       a. voice-data entry
       b. radio-frequency identification (RFID)
       c. magnetic strips
       d. **bar code scanners**

13. Which of the following statements about radio-frequency identification (RFID) is false?

a. **RFID only offers read capabilities.**
b. Walmart has been a major catalyst for RFID usage in logistics.
c. RFID can store large quantities of data.
d. RFID has helped to reduce the occurrence of inventory stockouts.

[LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Difficult; Synthesis; AACSB Category 3:  Analytical thinking]

14. A logistics information system (LIS) begins with _____.

a. **a logistics manager requesting information**
b. a good computer system
c. a lot of money
d. a customer order

[LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3:  Analytical thinking]

15. All of the following statements about logistics information systems (LIS) are true except:

a. "Timely" can refer to the up-to-date status of information.
b. **Internal sources of logistics information are relatively plentiful.**
c. "Timely" can refer to how quickly a manager receives requested information.
d. A logistics information system (LIS) must be concerned with the nature and quality of data.

[LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Difficult; Synthesis; AACSB Category 3:  Analytical thinking]

16. The primary advantage of _____ is that it enables a firm to test the feasibility of proposed changes at relatively little expense.

a. data mining
b. application-specific software
c. **simulation**
d. artificial intelligence

[LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3:  Analytical thinking]

17. Which of the following is not a logistics-related decision support system?

a. simulation
b. application-specific software
c. transportation management systems (TMS)

d. **electronic data interchange (EDI)**

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Difficult; Synthesis; AACSB Category 3: Analytical thinking]

18. Warehouse management systems (WMS) represent an example of what general type of information management system?

      a. communication system
      b. transaction processing system
      c. **decision support system**
      d. office automation system

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

19. Which of the following is not a potential benefit of transportation management systems (TMS)?

      a. **fewer stockouts**
      b. reduced fuel consumption
      c. decreased empty vehicle miles
      d. reduced transportation expenditures

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Difficult; Synthesis; AACSB Category 3: Analytical thinking]

20. _____ refers to the application of mathematical tools to large bodies of data in order to extract correlations and rules.

      a. Fuzzy logic
      b. Factor analysis
      c. **Data mining**
      d. Linear regression

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Concept; AACSB Category 3: Analytical thinking]

21. _____ refers to a computer-based discipline that leverages algorithms that can "learn" from data.

      a. Artificial intelligence
      b. The Internet of things (IoT)
      c. Expert systems
      d. **Machine learning**

22. _____ create and maintain consistent data processing methods and an integrated database across multiple business functions.

> a. Logistics information systems (LIS)
> b. **Enterprise systems**
> c. Decision support systems
> d. Transaction processing systems

23. The origins of contemporary enterprise resource planning (ERP) systems can be traced back to logistics and _____.

> a. **manufacturing**
> b. marketing
> c. purchasing
> d. finance

24. Which of the following statements about enterprise resource planning (ERP) is false?

> a. In recent years, ERP vendors have begun to provide high-quality application-specific logistic capabilities.
> b. ERP implementation costs can easily reach tens of millions of dollars.
> c. **ERP's origins can be traced back to finance and manufacturing.**
> d. ERP glitches often have a logistical component to them.

25. A general rule of thumb is that the actual time to implement enterprise resource planning (ERP) systems may range from _____ to _____ times longer than the time specified by the ERP vendor.

> a. 2;3
> b. **2;4**
> c. 2;5
> d. 3;4

[LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

26. Approximately _____ percent of the world's population currently uses the Internet.

    a. 53
    b. **49**
    c. 42
    d. 35

[LO 2.3: To review how logistics supports online retailing; Moderate; Application; AACSB Category 3: Analytical thinking]

27. Which of the following statements is false?

    a. Orders associated with online retailing tend to be for smaller quantities than in-store retailing.
    b. Online retailing is characterized by open-case, rather than full-case, picking.
    c. Online retailers are challenged by last-mile considerations.
    d. **Online retailing and in-store retailing experience similar rates of product return.**

[LO 2.3: To review how logistics supports online retailing; Difficult; Synthesis; AACSB Category 3: Analytical thinking]

28. What has emerged as the most popular application of on-demand logistics software (cloud computing)?

    a. warehouse management systems (WMS)
    b. **transportation management systems (TMS)**
    c. inventory optimization
    d. collaborative forecasting

[LO 2.4: To illustrate how cloud computing is being used to support logistics software usage; Moderate; Application; AACSB Category 3: Analytical thinking]

29. Which of the following is not a type of benefits that comes from electronic procurement?

    a. transactional benefits
    b. management information benefits
    c. compliance benefits
    d. **production benefits**

[LO 2.5: To report how companies are using electronic procurement to drive purchasing efficiency; Moderate; Application; AACSB Category 3: Analytical thinking]

30. In a reverse auction, _____.

a. multiple sellers invite bids from multiple buyers
b. one buyer invites bids from one seller
c. **one buyer invites bids from multiple sellers**
d. multiple sellers invite bids from one buyer

[LO 2.5:  To report how companies are using electronic procurement to drive purchasing efficiency; Easy; Concept; AACSB Category 3:  Analytical thinking]

31. The Internet of things (IoT) is expected to drive value in the supply chain and logistics disciplines through enhanced customer interactions and _____.

a. improved order management techniques
b. faster transit times
c. reduced warehousing requirements
d. **improvements in employee productivity**

[LO 2.6:  To explain how the Internet of things is affecting the information available to logistics managers; Moderate; Application; AACSB Category 3:  Analytical thinking]

32. _____ has been identified as the biggest information technology challenge that companies face today.

a. Software viruses
b. **Information security**
c. The cost of technology
d. Employee resistance

[LO 2.7:  To identify contemporary information technology issues; Moderate; Application; AACSB Category 3:  Analytical thinking]


**True-False Questions**

1. The effective and efficient use of information allows organizations to either reduce costs or improve customer satisfaction. (False) [LO 2.1:  To explain the importance of effective and efficient utilization of information for logistics management; Moderate; Application; AACSB Category 3:  Analytical thinking]

2. "Data" and "information" are synonymous terms. (False) [LO 2.1:  To explain the importance of effective and efficient utilization of information for logistics management; Easy; Application; AACSB Category 3:  Analytical thinking]

3. Big data refers to large amounts of near-real-time data collected through a variety of sources such as sensors and smart phones. (True) [LO 2.1:  To explain the importance of effective and

efficient utilization of information for logistics management; Easy; Concept; AACSB Category 3: Analytical thinking]

4. Office automation systems provide effective ways to process personal and organizational business data, to perform calculations, and to create documents. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Concept; AACSB Category 3: Analytical thinking]

5. A transaction processing system helps people work together by interacting and sharing information in many different forms. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

6. The Internet has emerged as the measuring stick for logistics information technology during the first decade of the twenty-first century. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

7. Transportation companies that have implemented global positioning systems (GPS) have reported increased worker productivity, reduced operating costs, and improved customer relations. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Difficult; Synthesis; AACSB Category 3: Analytical thinking]

8. Electronic data interchange (EDI) is an example of a logistics-related transaction processing system. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

9. Electronic data interchange (EDI) is no longer an important logistics technology in the twenty-first century. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Application; AACSB Category 3: Analytical thinking]

10. The idea behind point-of-sale systems is to provide data to guide and enhance managerial decision making. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

11. Radio-frequency identification (RFID) is the most popular automatic identification system currently in use. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

12. One prominent drawback to radio-frequency identification (RFID) involves privacy concerns. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Synthesis; AACSB Category 3: Analytical thinking]

13. A logistics information system (LIS) begins with a logistics manager requesting information and ends with the manager receiving regular and customized reports. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

14. "Timely" information can refer to its nature and quality. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Synthesis; AACSB Category 3: Analytical thinking]

15. The primary advantage of simulation is that it enables a firm to test the feasibility of proposed changes at relatively little expense. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

16. Application-specific software is a type of decision support system. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

17. One benefit to transportation management systems (TMS) is fewer stockouts. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Synthesis; AACSB Category 3: Analytical thinking]

18. Activities that can be controlled by a warehouse management system (WMS) include inventory management, determination of storage locations, and order shipping. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Synthesis; AACSB Category 3: Analytical thinking]

19. Correlation analysis uses sophisticated quantitative techniques to find "hidden" patterns in large volumes of data. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Concept; AACSB Category 3: Analytical thinking]

20. Walmart and its vendors make extensive use of data mining to improve supply chain efficiency and effectiveness. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Application; AACSB Category 3: Analytical thinking]

21. Artificial intelligence refers to a computer-based discipline that leverages algorithms that can "learn" from data. (False) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Easy; Concept; AACSB Category 3: Analytical thinking]

22. The attractiveness of enterprise resource planning (ERP) systems comes from their potential for lower costs as well as increased productivity and customer satisfaction. (True) [LO 2.2: To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

23. The origin of enterprise resource planning (ERP) systems can be traced back to finance and manufacturing. (False) [LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3: Analytical thinking]

24. A general rule of thumb is that the actual time to implement an enterprise resource planning (ERP) system may range from 1.5 to 2 times longer than the time period specified by the ERP vendor. (False) [LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3:  Analytical thinking]

25. In recent years, enterprise resource planning (ERP) vendors have begun to provide high-quality application-specific logistical capabilities. (True) [LO 2.2:  To distinguish between the general types of information systems and their logistical applications; Moderate; Application; AACSB Category 3:  Analytical thinking]

26. About 25 percent of the world's population currently uses the Internet. (False) [LO 2.3:  To review how logistics supports online retailing; Moderate; Application; AACSB Category 3: Analytical thinking]

27. There are few logistical similarities between online and in-store retailing. (False) [LO 2.3: To review how logistics supports online retailing; Easy; Application; AACSB Category 3: Analytical thinking]

28. The smaller order quantities occasioned by online retailing tend to favor transport companies with extensive delivery networks and expertise in parcel shipments. (True) [LO 2.3:  To review how logistics supports online retailing; Moderate; Synthesis; AACSB Category 3:  Analytical thinking]

29. The return rates associated with online retailing are quite similar to those associated with other kinds of retailing. (False) [LO 2.3:  To review how logistics supports online retailing; Easy; Application; AACSB Category 3:  Analytical thinking]

30. In response to a study that indicated that 35 percent of avid online shoppers desire locations with extended hours and not at their homes, UPS plans to install self-service parcel lockers in approximately 300 locations across the United States. (True) [LO 2.3:  To review how logistics supports online retailing; Moderate; Application; AACSB Category 3:  Analytical thinking]

31. One reason for the popularity of on-demand software is that is pay-per-use formula allows customers to avoid high capital investment costs. (True) [LO 2.4: To illustrate how cloud computing is being used to support logistics software usage; Moderate; Synthesis; AACSB Category 3:  Analytical thinking]

32. Cloud-based software allows for a great deal of customization. (False) [LO 2.4:  To illustrate how cloud computing is being used to support logistics software usage; Easy; Application; AACSB Category 3:  Analytical thinking]

33. The Internet is the primary transaction medium for cloud-based software. (True) [LO 2.4: To illustrate how cloud computing is being used to support logistics software usage; Easy; Application; AACSB Category 3: Analytical thinking]

34. Electronic procurement uses the Internet to make it easier, faster, and less expensive for an organization to purchase goods and services. (True) [LO 2.5: To report how companies are using electronic procurement to drive purchasing efficiency; Moderate; Synthesis; AACSB Category 3: Analytical thinking]

35. In a reverse auction, one seller invites bids from multiple buyers. (False) [LO 2.5: To report how companies are using electronic procurement to drive purchasing efficiency; Easy; Concept; AACSB Category 3: Analytical thinking]

36. The Internet of things (IoT) refers to the sensors and data-communication technology that is built into physical objects that enables them to be tracked and controlled over the Internet. (True) [LO 2.6: To explain how the Internet of things is affecting the information available to logistics managers; Moderate; Application; AACSB Category 3: Analytical thinking]

37. The Internet of things (IoT) is expected to drive value in the supply chain and logistics disciplines through faster transit times and enhanced customer interactions. (False) [LO 2.6: To explain how the Internet of things is affecting the information available to logistics managers; Moderate; Application; AACSB Category 3: Analytical thinking]

38. Information technology should be regarded as a tool to help managers address organizational problems. (True) [LO 2.7: Information technology challenges; Moderate; Application; AACSB Category 3: Analytical thinking]

39. Software viruses are viewed as the most important information technology issue that companies face today. (False) [LO 2.7: To identify contemporary information technology issues; Moderate; Application; AACSB Category 3: Analytical thinking]

40. People-related factors, such as employee resistance, have been identified as a major cause of information technology implementation failure. (True) [LO 2.7: To identify contemporary information technology issues; Moderate; Synthesis; AACSB Category 3: Analytical thinking]