**Chapter 1**

**Accounting Information Systems: An Introduction**

**Answer Key**

**True / False Questions**

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| 1. | **Accounting and Finance is a primary activity in the value chain.**  Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain. Topic: The Value Chain and Accounting Information Systems* |
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| 2. | **Accounting Information Systems at this date are all computerized.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-02 Distinguish between data, information and an information system*.  *Topic: Data versus Information* |

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| 3. | **Business value includes all those items, events and interactions that determine the financial health and well-being of the firm.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*  *Topic: The Value Chain and Accounting Information Systems* |

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| 4. | **The Certified Information Technology Professional (CITP) is a professional designation for those with a broad range of technology knowledge and does not require a CPA.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems Topic: Role of Accountants in Accounting Information Systems* |

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| 5. | **The Certified Information Systems Auditor (CISA) is a professional designation generally sought by those performing IT audits.**  Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems Topic: Role of Accountants in Accounting Information Systems* |

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| 6. | **Information is defined as being data organized in a meaningful way that is useful to the user.**    Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-02 Distinguish between data, information and an information system*.  *Topic: Data versus Information* |

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| 7. | **Data is defined as being information organized in a meaningful way that is useful to the user.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-02 Distinguish between data, information and an information system*. *Topic: Data versus Information* |

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| 8. | **A systems analyst analyzes a business problem that might be addressed by an information system and recommends software or systems to address that problem.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain. Topic: The Value Chain and Accounting Information Systems* |

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| 9. | **A value chain is defined as the flow of materials, information, payments, and services from customer to supplier.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain. Topic: The Value Chain and Accounting Information Systems* |

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| 10. | **Relevant information is that information that is free from bias and error.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy*  *Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.*  *Topic: Definition of Accounting Information Systems, Attributes of Useful Information* |

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| 11. | **The characteristics of relevant information include predictive value, feedback value and timeliness.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy*  *Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.*  *Topic: Definition of Accounting Information Systems, Attributes of Useful Information* |

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| 12. | **The characteristics of reliable information are that the information is verifiable, without bias and timely.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy*  *Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.*  *Topic: Definition of Accounting Information Systems, Attributes of Useful Information* |

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| 13. | **Information overload is defined as the difficulty a person faces in understanding a problem and making a decision as a consequence of too much information.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-02 Distinguish between data, information and an information system*. *Topic: Definition of Accounting Information Systems, Attributes of Useful Information* |

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| 14. | **The main financial benefit of Customer Relationship Management practices reduces the cost of goods sold.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices. Topic: AIS, Firm Profitability, and Stock Prices* |

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| 15. | **An efficient Enterprise System can significantly lower the cost of support processes included in sales, general, and administrative expenses.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices. Topic: AIS, Firm Profitability, and Stock Prices* |

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| 16. | **An accounting information system (AIS) is defined as being an information system that records, processes and reports on transactions to provide financial and nonfinancial information for decision making and control.**    Answer: **TRUE**  AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.  Topic: Definition of Accounting Information Systems |

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| 17. | **An enterprise system is a centralized database that collects data from throughout the firm. This includes data from orders, customers, sales, inventory and employees.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-06 Describe how AIS assists the firm’s internal business processes.*  *Topic: AIS and Internal Business Processes* |

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| 18. | **Outbound logistics are the activities associated with receiving and storing raw materials and other partially completed materials, and distributing those materials to manufacturing when and where they are needed.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain. Topic: The Value Chain and Accounting Information Systems* |
| 19. | **Service Activities as defined in the value chain are those activities that provide the support of customers after the products and services are sold to them (e.g. warranty repairs, parts, instruction manuals, etc.).**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-04 Describe how business processes affect the firm’s value chain. Topic: The Value Chain and Accounting Information Systems* |

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| 20. | **A well-designed and well-functioning AIS can be expected to create value by providing relevant information helpful to management to increase revenues and reduce expenses.**    Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*  *Topic: AIS, Firm Profitability, and Stock Prices* |

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| 21. | **Production of a 1040 tax form from the AIS to be delivered to the Internal Revenue Service is an example of discretionary information.**   Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-02 Distinguish between data, information and an information system*. *Topic: Data versus Information* |

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| 22. | **An enterprise system is primarily used to manage and nurture a firm’s interactions with its current and potential clients.**    Answer: **FALSE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-06 Describe how AIS assists the firm’s internal business processes.*  *Topic: AIS and Internal Business Processes* |

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| 23. | **The Sarbanes-Oxley Act of 2002 is a federal law in the United States that set new and enhanced standards for all U.S. public companies, their management and public accounting firms.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems*  *Topic: Role of Accountants in Accounting Information Systems* |

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| 24. | **CRM software often includes the use of database marketing tools to learn more about the customers and to develop strong firm-to-customer relationships.**    Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*  *Topic: AIS and External Business Processes* |

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| 25. | **The Certified Information Technology Professional is the position created by the AICPA to recognize CPAs who have the ability to provide skilled professional services on Information Technology.**   Answer: **TRUE**  *AACSB: Reflective Thinking AICPA BB: Industry AICPA FN: Decision Making Blooms: Remember Difficulty: 1 Easy Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems.*  *Topic: Data versus Information* |

**Multiple Choice Questions**

26.  **Accounting information systems:**

* 1. Are always computerized.
  2. Report only accounting information.
  3. **Include records, processes and reports.**
  4. Are for computer games.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.*

*Topic: Definition of Accounting Information Systems*

1. **Which of the following is not a characteristic of useful information?**
   1. **Easy to understand**
   2. Feedback value
   3. Timeliness
   4. Representational Faithfulness

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium*

*Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.  
Topic: Attributes of Useful Information*

1. **Which of the following are considered to be mandatory information required by a regulatory body?**
   1. **Financial reports for the Securities and Exchange Commission**
   2. The amount of taxes saved by a merger
   3. The total dollar value of fireworks that are sold on July 4
   4. The cost to build an all-new Starbucks restaurant in Abu Dhabi

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish between data, information and an information system*.

*Topic: Data versus Information*

1. **The correct order of effects in the value chain are:**
   1. Inbound Logistics 🡺 Operations 🡺 Service
   2. Inbound Logistics 🡺 Outbound Logistics 🡺 Marketing & Sales
   3. **Inbound Logistics 🡺 Operations 🡺 Outbound Logistics**
   4. Inbound Logistics 🡺 Operations 🡺 Service

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*

1. **Which designation would be most appropriate for those professionals possessing IT audit, control and security skills?**
   1. Certified Internal Auditor (CIA)
   2. Certified Public Accountant (CPA)
   3. Certified Information Technology Professional (CITP)
   4. **Certified Information Systems Auditors (CISA)**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems.*

*Topic: Role of Accountants in Accounting Information Systems*

1. **Which designation is for CPAs with a broad range of technology knowledge and experience?**
   1. Certified Internal Auditor (CIA)
   2. Certified Public Accountant (CPA)
   3. **Certified Information Technology Professional (CITP)**
   4. Certified Information Systems Auditors (CISA)

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems.*

*Topic: Role of Accountants in Accounting Information Systems*

1. **A supply chain:**
   1. Refers to the supplies needed to build products.
   2. **Refers to the flow of materials, information, payments and services.**
   3. Is similar in function and purpose to the value chain.
   4. Does not apply to a service firm like an accounting firm.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **A supply chain system does not include information about:**
   1. Current customers.
   2. **Prospective customers.**
   3. Availability of inventory.
   4. Current suppliers.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **The income statement line item most likely affected by an AIS investment in enterprise systems would be:**
   1. Revenues.
   2. Cost of Goods Sold.
   3. **Selling, General and Administrative Expenses.**
   4. Unearned Revenue.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **The income statement line item most likely affected by an AIS investment in supply chain that would interface with suppliers would be:**
   1. Revenues.
   2. **Cost of Goods Sold.**
   3. Selling, General and Administrative Expenses.
   4. Research and Development Expenses.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **The IT strategic roles of AIS investments are classified as:**
   1. **Automate, Informate, Transform.**
   2. Value creation, Value Destruction, Value Neutral.
   3. Digitize, Report, Transform.
   4. Automate, Digitize, Transport.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **According to a recent study, the transform IT strategic role is defined as systems that:**
   1. Replace human labor in automating business processes.
   2. Provide information about business activities to all employees.
   3. Provide information about business activities to senior management.
   4. **Fundamentally redefine business processes and relationships.**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **According to a recent study, the informate-up IT strategic role is defined as systems that:**
   1. Replace human labor in automating business processes.
   2. Provide information about business activities to all employees.
   3. **Provide information about business activities to senior management.**
   4. Fundamentally redefine business processes and relationships.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **The income statement account most likely affected by an AIS investment in customer relationship management (CRM) would be:**
   1. **Revenues.**
   2. Cost of Goods Sold.
   3. Selling, General and Administrative Expenses.
   4. Unearned Revenue.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **Many hospitals and doctor’s offices are beginning to digitize the medical records of their patients. This is an example of the \_\_\_\_\_\_\_\_\_\_\_\_ strategic role.**
   1. **Automate**
   2. Informate – up
   3. Transform
   4. Informate – down

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **EBay uses information technology to sell goods on the internet. This would be an example of the \_\_\_\_\_\_\_\_\_\_\_ strategic role.**
   1. Automate
   2. Informate – up
   3. **Transform**
   4. Informate – down

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **The Information Value Chain is defined as:**
   1. The flow of materials, information, payments, and services.
   2. The use of computer technology to provide information about business activities to employees across the firm.
   3. **The overall transformation of data from a business need to the ultimate decision.**
   4. A centralized database that collects data from throughout the firm.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish between data, information and an information system*.

*Topic: Data versus Information*

1. **Business Value is defined as:**
   1. The monetary value of a business.
   2. **Items, events and interactions that determine the financial health and well-being of the firm.**
   3. The cost to acquire a business by an outsider.
   4. The overall value of taking data and transforming it in to information needed for decision making.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*

1. **Customer Relationship Management is defined as:**
   1. **A system used to manage and nurture a firm’s interactions with its current and potential customers.**
   2. A system used to track a customer’s past purchases
   3. A system used to connect a firm’s suppliers with a firm’s customers.
   4. A system used to advertise current items on sale to customers.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **Support activities in the value chain do not include:**
   1. Firm Infrastructure.
   2. Human Resource Management.
   3. Procurement.
   4. **Accounting and Finance.**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*

1. **The role of accountants in accounting information systems include all except:**
   1. User.
   2. Manager.
   3. **Operator.**
   4. Evaluator.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems.*

*Topic: Role of Accountants in Accounting Information Systems*

1. **A simple information system includes all but the following elements except:**
   1. Processing.
   2. Storage.
   3. Input.
   4. **Reporting.**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish between data, information and an information system*.

*Topic: Data versus Information*

1. **Activity-based costing is an example of:**
   1. Information overload.
   2. Mandatory information.
   3. **Discretionary information.**
   4. Enterprise System.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish between data, information and an information system*.

*Topic: Data versus Information*

1. **An example of an AIS that primarily addresses internal business processes includes:**
   1. Supply chain software.
   2. Customer relationship management software.
   3. B2B transaction software.
   4. **Enterprise systems.**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-06 Describe how AIS assists the firm’s internal business processes.*

*Topic: AIS and Internal Business Processes*

50.  **Bob’s manager complains that Bob suffers from “Analysis Paralysis;” that is, he spends too much time reviewing endless reports and is reluctant to make decisions. Bob most likely suffers from \_\_\_\_\_\_\_\_\_\_\_\_.**

* 1. Data gridlock.
  2. Discretionary information.
  3. **Information overload.**
  4. Data redundancy.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish among data, information, and an information system.*

*Topic: Data versus Information*

51.  **Which of the following systems would a company be most likely to employ for the primary purpose of generating additional sales revenue?**

1. MDBMS.
2. **CRM.**
3. SCM.
4. OCR.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Understand  
Difficulty: 2 Medium  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

52.  **The primary transformation of data into information takes place in which of the following activities?**

1. Input.
2. Storage.
3. **Processing.**
4. Output.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish among data, information, and an information system.*

*Topic: Data versus Information*

53.  **Discretionary information is most likely to be used in which of the following activities?**

1. Preparing required Environmental Protection Agency emissions reports.
2. Filing a 10-K with the SEC.
3. **Management decision-making.**
4. Payroll tax reporting.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish among data, information, and an information system.*

*Topic: Data versus Information*

54.  **Which of the following is *not* a primary activity in the Value Chain?**

1. Outbound Logistics.
2. Marketing.
3. Inbound Logistics.
4. **Information Technology.**

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*

55.  **One of the most important ways that ERPs benefit organizations and their business processes is:**

1. **Current information is made available to all users involved in the activities and decisions associated with a company’s business processes.**
2. Information is stored in many specialized, distributed databases that each serve separate business processes.
3. Reducing the amount of time to complete business processes by eliminating all controls associated with the processes.
4. Preventing external business partners from accessing the organization’s data.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-06 Describe how AIS assists the firm’s internal business processes.*

*Topic: AIS and Internal Business Processes*

56.  **One common way of measuring the effectiveness of the Supply Chain is through the fill rate. Which of the following best describes the fill rate?**

1. **The percentage, in monetary value, of a supplier’s order which is actually delivered to the organization.**
2. The number of items per hour that receiving employees can move from the receiving dock to the warehouse.
3. The rate at which the stock in warehouse storage bins increases.
4. The average amount of time it takes for the organization to fulfill customers’ orders.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

57.  **Investors reward companies most that announce IT initiatives with which type of strategic role?**

1. Automate.
2. Informate – up.
3. **Transform.**
4. Informate – down.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-02 Distinguish among data, information, and an information system.*

*Topic: Data versus Information*

58.  **A dental practice implemented an upgrade to its AIS that provides the dentists with daily and weekly patient and financial summaries. The practice’s upgrade is an example of which IT strategic role?**

1. Automate.
2. **Informate – up.**
3. Transform
4. Informate – down.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

59.  **Which of the following most accurately describes IFAC’s description of accounting and IT?**

1. IT is an important peripheral discipline to accounting.
2. Accounting and IT are indistinguishable from one another.
3. **It is difficult to conceive of accounting independent from IT.**
4. Accounting is an important peripheral discipline to IT.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information, and explain certifications related to accounting information systems.*

*Topic: Role of Accountants in Accounting Information Systems*

60.  **Which of the following diagrams most accurately illustrates an information system?**

1. 
2. 
3.  **Correct.**
4. 

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-01 Define an accounting information system, and explain characteristics of useful information.*

*Topic: Definition of Accounting Information Systems*

61.  **The Sarbanes-Oxley Act of 2002 requires that a company’s attest auditors be able to perform which of the following activities?**

1. **Evaluate the internal controls in an AIS.**
2. Assess the value of a company’s IT assets.
3. Take over the company’s AIS if necessary.
4. Design and implement the controls used in the AIS.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information, and explain certifications related to accounting information systems.*

*Topic: Role of Accountants in Accounting Information Systems*

62.  **Consider the non-profit organization Doctors without Borders (Médecins Sans Frontières), a Nobel Peace Prize winning organization that provides medical services in war zones and developing countries. For this type of organization, which of the following would likely be the best measure of business value?**

1. Fund balance (i.e., the net of revenues less expenditures).
2. **Lives saved.**
3. Donations raised.
4. Volunteers deployed.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-04: Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*

63.  **Effective use of Supply Chain Management software is generally expected to provide all of the following benefits *except*:**

1. Reduced inventory carrying costs.
2. Lower production costs.
3. **Reduced gross margins.**
4. Better communications with suppliers.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-07: Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

64.  **Which of the following is usually the primary objective for companies when creating mandatory information?**

1. The value of the information exceeds the cost to produce it.
2. **Minimize cost.**
3. Improve business decisions.
4. Ensure proper controls over business processes.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Apply  
Difficulty: 2 Medium  
Learning Objective: 01-02: Distinguish among data, information, and an information system.*

*Topic: Data versus Information*

**Essay Questions**

1. **After a college football game, a box score is produced detailing the number of yards passing and running, receptions made and the number of interceptions and fumbles lost (among other statistics). Using the characteristics of useful information (including relevance and reliability), please explain how this box score meets (or does not meet) the characteristics of useful information. How would the football coach use this information to prepare for the next game, decide which players to start, etc.?**

**Answers will vary**, especially with respect to their knowledge of American Football! The instructor may wish to include other sports or other activities where a box score might be produced. In American Football, yards per carry, turnover margin, interceptions, fumbles, run vs. pass plays, 3rd down plays and success, yards per catch, yards after catch, number of tackles, etc. would all be useful.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard* *Learning Objective: 01-01 Define an accounting information system and explain characteristics of useful information.*

*Topic: Definition of Accounting Information Systems, Attributes of Useful Information*

1. **List and explain three ways that AIS affects the income statement and the firm’s profitability.**

**Answers will vary** but could include some of these items.

|  |  |
| --- | --- |
| Income Statement | Effect of AIS on Income Statement |
| Revenues | **Customer Relationship Management** techniques could attract new customers, generating additional sales revenue. |
| Less: Cost of Goods Sold | **Supply Chain Management Software** allows firms to carry the right inventory and have it in the right place at the right time. This, in turn, will lower obsolescence as well as logistics and procurement costs. |
| Gross Margin |  |
| Less: Selling, General and Administrative Expenses (SG&A) | An efficient **Enterprise System** can significantly lower the cost of support processes included in sales, general, and administrative expenses. |
| Less: Interest Expense | **Supply Chain Management Software** allows the firm to carry less inventory. The less inventory the firm has to carry leaves less assets to finance, and may possibly reduce debt and its related interest. |
| Net Income | All combined, a well-designed and well-functioning AIS with investments in **Enterprise Systems, Supply Chain Management** and/or **Customer Relationship Management** can be expected to improve net income |

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **Some would argue that the role of accounting is simply as an information provider. Others suggest that accountants serve the role of business analyst. Which role produces more value for a company like Starbucks? In the area of accounting information systems, what specifically can the accountant do to serve as a business analyst to help address business opportunities?**

**Answers will vary**! Accountants carry out an important function by providing information. However, it is arguable that accountants can add value to a company by serving as a business analyst; that is, understand what information needs to be collected and then help in its interpretation.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
Difficulty: 3 Hard  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems*

*Topic: Role of Accountants in Accounting Information Systems*

1. **Explain the types of discretionary information a company like Google would collect from its accounting information system.**

**Answers will vary**! Google might want some managerial accounting information about how various products and lines of business have done, the cost of production for various advertising products, the cost of employee incentives (stock options, etc.) that would all be useful in helping it manage its business.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-06 Describe how AIS assists the firm’s internal business processes.*

*Topic: AIS and Internal Business Processes*

1. **Why would the transform IT strategic role be more impactful on stock price than the automate IT strategic role?**

**Answers will vary**! A potential answer might include that automate IT strategic role just automates something that was done before by hand. This generally represents a cost reduction rather than a new revenue opportunity. The transform IT strategic involves using technology to establish a new business model. New business models, while fraught with risk, often suggest new ways to make money that were not envisioned before and thus might encourage shareholders to pay more for a company’s stock.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-08 Assess the impact of AIS on firm profitability and stock prices.*

*Topic: AIS, Firm Profitability, and Stock Prices*

1. **Stephen Gillett, Starbucks CIO, argues that his most crucial duty is to enhance Starbucks’ ability to mine its customer data to help “reignite our passion with our customers.” Starbucks used loyalty cards (Starbucks’ Reward cards) and surveys to track its customers’ purchases and build profiles of their customers as mentioned in the opening chapter vignette. Why is this a good example of customer relationship management (CRM)?**

**Answers will vary**. Using loyalty cards will help Starbucks understand its customers; that is, what they buy, when they buy it, where they buy it, in what quantities, etc., which is exactly the role of CRM.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **Michael Dell of Dell Computer explained:**

***“We tell our suppliers exactly what our daily production requirements are so it is not, "Well, every two weeks deliver 5,000 to this warehouse, and we'll put them on the shelf, and then we'll take them off the shelf." It is, "Tomorrow morning we need 8,562, and deliver them to door number seven by 7 am."***

**How does the supply chain management software allow this to happen? And how does it save Dell money?**

**Answers will vary**. The supply chain allows Dell to forecast demand for its various products and share that demand with its suppliers. Suppliers will know the long-term plan and thus not be surprised when an actual order arrives. Dell saves money by not having to hold inventory too long saving investment dollars and warehouse space.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **Amazon.com is one of the best at fostering its interaction with their customers by keeping a record of their past purchases and product searches and using that information to recommend other similar products for the customer to consider. How can they use that information to help them in their marketing efforts?**

**Answers will vary**. By getting this information, Amazon understand its customers; that is, what they buy, when they buy it, in what quantities, etc., and can use it to encourage its customers to buy more products that computer models suggest they might be interested in.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **The Certified Information Systems Auditors (CISA) designation identifies those professionals possessing IT audit, control and security skills. How do you think a professional designation is helpful for IT auditors?**

**Answers will vary**. The answer should emphasize the need for specialized skills in order to fully understand and audit an AIS and the technology surrounding it. The CISA designation recognizes that the IS auditor has demonstrated those skills through demonstration of knowledge and practical experience.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems  
Topic: Role of Accountants in Accounting Information Systems*

1. **The American Institute of Certified Public Accountants (AICPA) and International Federation of Accountants (IFAC) assumes that, at a minimum, all accountants will be proficient in the AIS user role and at least one other role listed above (manager or designer or evaluator). Why would the AICPA and IFAC expect this proficiency?**

**Answers will vary**. A potential answer might indicate that all accountants are users in some sense; at a minimum, they will request and use information in the AIS to perform their jobs, no matter which role they play. The additional role they play will depend on the function being performed, whether as an employee of a company, an auditor for a CPA firm, a tax advisor, an AIS consultant, or other some other function.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems  
Topic: Role of Accountants in Accounting Information Systems*

1. **The International Federation of Accountants says:**

***“IT has grown (and will continue to grow) in importance at such a rapid pace and with such far reaching effects that it can no longer be considered a discipline peripheral to accounting. Rather, professional accounting has merged and developed with IT to such an extent that one can hardly conceive of accounting independent from IT.”***

**In your opinion, why is accounting now interdependent with IT?**

**Answers will vary**. A potential answer might reflect information presented in the class or textbook about the IT nature of accounting and the importance of accountants being proficient in roles associated with IT.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-03 Distinguish the roles of accountants in providing information and explain certifications related to accounting information systems  
Topic: Role of Accountants in Accounting Information Systems*

1. **Wal-Mart’s Retail Link database is one of the world’s largest databases and allows many of their suppliers to view real-time sales data of their products for each store. This allows suppliers to assess the demand for their products and to optimize their own level of inventory and related logistics costs. How is this cost savings ultimately passed on to Wal-Mart and its customers?**

**Answers will vary**. A potential answer might reflect that Retail Link saves Wal-Mart and its supplier’s money due to its assessment of what sells and what does not sell. This helps suppliers to save money and Wal-Mart thus requires that this savings be shared between suppliers, Wal-Mart, and Wal-Mart suppliers.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-07 Assess how AIS facilitates the firm’s external business processes.*

*Topic: AIS and External Business Processes*

1. **Business value is defined as all items, events and interactions that determine the financial health and well-being of the firm. This value may come from suppliers, customers or employees or even information systems.**

**How would a not-for-profit group like the International Red Cross define business value for its group?**

**Answers will vary**. A not-for-profit group like the International Red Cross might define value by the number of lives saved, the number of liters of blood in storage, its ability to react to a disasters, etc.

*AACSB: Reflective Thinking  
AICPA BB: Industry  
AICPA FN: Decision Making  
Blooms: Analyze  
 Difficulty: 3 Hard  
Learning Objective: 01-04 Describe how business processes affect the firm’s value chain.*

*Topic: The Value Chain and Accounting Information Systems*