

Student: _____

1. What are the different types of information?
 - A. Levels, forms, granularities
 - B. Levels, forms, data
 - C.** Levels, formats, granularities
 - D. Data, formats, granularities
2. Which of the following represents the different information levels?
 - A. Detail, summary, aggregate
 - B. Document, presentation, spreadsheet, database
 - C.** Individual, department, enterprise
 - D. None of the above
3. Which of the following represents the different information formats?
 - A. Detail, summary, aggregate
 - B.** Document, presentation, spreadsheet, database
 - C. Individual, department, enterprise
 - D. None of the above
4. Which of the following represents the different information granularities?
 - A.** Detail, summary, aggregate
 - B. Document, presentation, spreadsheet, database
 - C. Individual, department, enterprise
 - D. None of the above
5. Which of the following is the characteristic of quality information?
 - A. Accuracy
 - B. Completeness
 - C. Consistency
 - D.** All of the above
6. Which of the following is not one of the five characteristics common to high quality information?
 - A. Accuracy
 - B. Completeness
 - C.** Quantity
 - D. Consistency
7. Which of the following implies that aggregate or summary information is in agreement with detailed information?
 - A. Uniqueness
 - B. Completeness
 - C.** Consistency
 - D. Accuracy
8. Which of the following implies that information is current with respect to the business requirement?
 - A. Uniqueness
 - B. Accuracy
 - C. Consistency
 - D.** Timeliness

9. What is it called when each transaction, entity, and event is represented only once in the information?
- A. Uniqueness
 - B. Accuracy
 - C. Consistency
 - D. Timeliness
10. Which of the following can a database maintain information on?
- A. Inventory
 - B. Transactions
 - C. Employees
 - D. All of the above
11. Which of the following database structures stores information in a tree-like structure that allows repeating information using parent/child relationships, in such a way that it cannot have too many relationships?
- A. Hierarchical database
 - B. Network database
 - C. Relational database model
 - D. All of the above
12. Which of the following database structures offers a flexible way of representing objects and their relationships?
- A. Hierarchical database
 - B. Network database
 - C. Relational database model
 - D. All of the above
13. In the relational database model, what is a person, place, thing, transaction, or event about which information is stored?
- A. Entity
 - B. Entity class
 - C. Attribute
 - D. Attribute class
14. In the relational database model, what is a collection of similar entities?
- A. Entity
 - B. Entity class
 - C. Attribute
 - D. Attribute class
15. In the relational database model, what are characteristics or properties of an entity class?
- A. Entity
 - B. Entity class
 - C. Attribute
 - D. Attribute class
16. What are characteristics or properties of an entity class called?
- A. Attributes
 - B. Fields
 - C. Columns
 - D. All of the above
17. Why do relational databases use primary keys and foreign keys?
- A. To create a database
 - B. To create physical relationships
 - C. To create logical relationships
 - D. All of the above

18. What is a primary key?
- A. A field (or group of fields) that uniquely identifies a given entity in a table
 - B. A primary key of one table that appears as an attribute in another table and acts to provide a logical relationship among the two tables
 - C. Characteristics or properties of an entity class
 - D. A field (or group of fields) that uniquely identifies a given attribute in a table
19. What is a foreign key?
- A. A field (or group of fields) that uniquely identifies a given entity in a table
 - B. A primary key of one table that appears as an attribute in another table and acts to provide a logical relationship among the two tables
 - C. Characteristics or properties of an entity class
 - D. A field (or group of fields) that uniquely identifies a given attribute in a table
20. All of the following are advantages of database-stored information, except:
- A. Increased flexibility
 - B. Increased performance
 - C. Increased information redundancy
 - D. Increased information integrity
21. Which of the following is incorrect in reference to a database?
- A. Can be relational or network
 - B. Information is accessed by logical structure
 - C. Information is accessed by physical structure
 - D. Users can access different views of information
22. What is the physical view of information?
- A. Deals with the physical storage of information on a storage device such as a hard disk
 - B. Deals with the logical storage of information on a storage device such as a hard disk
 - C. Focuses on how users logically access information to meet their particular business needs
 - D. Focuses on how users physically access information to meet their particular business needs
23. Which of the following is correct in reference to a database?
- A. A database can support only one logical view
 - B. A database can support many physical views
 - C. A database can support many logical views
 - D. A database can support up to 3 logical views
24. What refers to how well a system can adapt to increased demands?
- A. Scalability
 - B. Performance
 - C. Redundancy
 - D. Information integrity
25. Which of the following measures how quickly a system performs a certain process or transaction?
- A. Scalability
 - B. Performance
 - C. Redundancy
 - D. Information integrity
26. What is information redundancy?
- A. Duplication of information
 - B. Storing the same information in multiple places
 - C. Storing duplicate information in multiple places
 - D. All of the above

27. What is the primary problem with redundant information?
- A. It is difficult to determine which values are the most current
 - B. It is often inconsistent
 - C. It is difficult to determine which values are the most accurate
 - D. All of the above**
28. Which of the following is true in regards to the elimination of redundant information?
- A. Uses additional hard disk space
 - B. Makes performing information updates harder
 - C. Improves information quality**
 - D. All of the above
29. What are the rules that help ensure the quality of information?
- A. Information integrity
 - B. Integrity constraints**
 - C. Relational integrity constraints
 - D. Business-critical integrity constraints
30. What are rules that enforce basic and fundamental information-based constraints?
- A. Information integrity
 - B. Integrity constraint
 - C. Business-critical integrity constraint
 - D. Relational integrity constraint**
31. Which of the following is a valid type of integrity constraint?
- A. Performance integrity constraint
 - B. Scalability integrity constraint
 - C. Physical integrity constraint
 - D. Business-critical integrity constraint**
32. What type of integrity constraint does not allow someone to create an order for a nonexistent customer?
- A. Relational integrity constraint**
 - B. Business-critical integrity constraint
 - C. Information-critical integrity constraint
 - D. None of the above
33. All of the following are relational integrity constraints, except
- A. System will not allow an entry for an order for a nonexistent customer
 - B. System will not allow returns of fresh produce after 15 days past delivery**
 - C. System will not allow shipping a product to a customer who does not have a valid address
 - D. Systems will not allow shipping of a nonexistent product to a customer
34. Which of the following uses a DBMS to interact with a database?
- A. Users of accounting programs
 - B. Users of human resource programs
 - C. Users of marketing programs
 - D. All of the above**
35. What directly accesses a database?
- A. Accounting system users
 - B. DBMS**
 - C. Finance system users
 - D. All of the above

36. When Wal-Mart receives inventory to an individual store, this would be an example of using _____?
A. Analytical information
B. Transactional data
C. Real-time data
D. Real-time information
37. When Wal-Mart reviews their monthly sales totals and profits by province, this would be an example of using _____?
A. Analytical information
B. Transactional data
C. Real-time data
D. Real-time information
38. When the Royal Bank immediately updates your bank deposit of \$500 into your account, this would be an example of _____?
A. Analytical information
B. Transactional data
C. Real-time data
D. Real-time information
39. What is the time duration to make transactional data ready for analysis, and loading the summarized, aggregated, cleansed data into a data warehouse?
A. Data latency
B. Analysis latency
C. Decision latency
D. None of the above
40. What is the time from which the analytical information is made available to the time when analysis is complete?
A. Data latency
B. Analysis latency
C. Decision latency
D. None of the above
41. What is the time it takes a human to comprehend the analytic result and determine an appropriate action?
A. Data latency
B. Analysis latency
C. Decision latency
D. None of the above
42. What benefits include working time saved in producing reports, selling information to suppliers, and so on?
A. Direct quantifiable benefits
B. Indirect quantifiable benefits
C. Unpredictable benefits
D. Intangible benefits
43. What benefits can be evaluated through indirect evidence—improved customer service means new business from the same customer, and differentiated service brings new customers?
A. Direct quantifiable benefits
B. Indirect quantifiable benefits
C. Unpredictable benefits
D. Intangible benefits

44. What benefits are the result of discoveries made by creative users?
- A. Direct quantifiable benefits
 - B. Indirect quantifiable benefits
 - C. Unpredictable benefits**
 - D. Intangible benefits
45. What benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing?
- A. Direct quantifiable benefits
 - B. Indirect quantifiable benefits
 - C. Unpredictable benefits
 - D. Intangible benefits**
46. What is a forward integration?
- A. Takes information entered into a given system and sends it to the application generation component
 - B. Takes information entered into a given system and sends it automatically to all downstream systems and processes**
 - C. Takes information entered into a given system and sends it automatically to all upstream systems and processes
 - D. Takes information entered into a given system and sends it to the DBMS
47. What is a backward integration?
- A. Takes information entered into a given system and sends it to the application generation component
 - B. Takes information entered into a given system and sends it automatically to all downstream systems and processes
 - C. Takes information entered into a given system and sends it automatically to all upstream systems and processes**
 - D. Takes information entered into a given system and sends it to the DBMS
48. What is an integration?
- A. Allows separate systems to communicate directly with each other**
 - B. Takes information entered into a given system and sends it to the database
 - C. Takes information entered into a given system and sends it to other processes
 - D. Takes information entered into a given system and sends it to the DBMS
49. A data warehouse is a _____ collection of information-gathered from many different _____ databases-that supports business analysis activities and decision-making tasks.
- A. Physical; transactional
 - B. Physical; operational
 - C. Logical; transactional
 - D. Logical; operational**
50. All of the following are reasons why operational systems are not appropriate for business analysis, except:
- A. Does not include information from other operational applications
 - B. Operational systems are integrated**
 - C. Operational information is mainly current
 - D. Operational information frequently has quality issues
51. Bill Inmon, known as the "Father of Data Warehousing" described a Data Warehouse as a collection of data that is:
- A. subject-oriented
 - B. integrated and time-variant
 - C. non-volatile
 - D. All of the above**

52. Which of the following describes ETL?
- A. A process that extracts information from internal and external databases
 - B. A process that transforms information using a common set of enterprise definitions
 - C. A process that loads information into a data warehouse
 - D. All of the above**
53. What is data mining?
- A. The common term for the representation of multidimensional information
 - B. A particular attribute of information
 - C. Uses a variety of techniques to find patterns and relationships in large volumes of information and infer rules from them that predict future behaviour and guide decision making
 - D. Process of analyzing data to extract information not offered by the raw data alone**
54. What does the Data Warehousing Institute estimate that low-quality information costs U.S. businesses annually?
- A. \$500 million
 - B. \$60 billion
 - C. hundred of billions of dollars**
 - D. It is impossible to determine
55. When does information cleansing occur in the data warehouse?
- A. During the ETL process
 - B. On the information, once it is in the data warehouse
 - C. During the ETL process and once it is in the data warehouse**
 - D. During the ETL process and before it is in the data warehouse
56. Which of the following statements is true regarding customer information?
- A. Customer information can exist in several operational systems
 - B. Customer information in each operational system could change
 - C. Customer information in each operational system can be different
 - D. All of the above**
57. Which of the following occurs during data cleansing?
- A. Clean missing records
 - B. Clean redundant records
 - C. Clean inaccurate data
 - D. All of the above**
58. Which of the following statements is true?
- A. The more complete an organization wants to get its information, the less it costs
 - B. The more accurate an organization wants to get its information, the less it costs
 - C. The less accurate an organization wants to get its information, the more it costs
 - D. The more complete and accurate an organization wants to get its information, the more it costs**
59. What is information that people use to support their decision-making efforts?
- A. Information cleansing and scrubbing
 - B. Data-mining tools
 - C. Data mining
 - D. Business intelligence**
60. Which of the following does not draw a parallel between the challenges in business and the challenges of war?
- A. Collecting information
 - B. Discerning patterns and meaning in the information
 - C. Accurate and complete information**
 - D. Responding to the resultant information

61. Which company uses statistical analysis to automatically detect potential issues, provide quick and easy access to reports, and perform multidimensional analysis on all warranty information?
- A. Burlington Northern and Santa Fe Railroad
 - B. BostonCoach
 - C. Verizon Communications
 - D. Whirlpool
62. Why is Ben & Jerry's using business intelligence?
- A. To improve quality
 - B. To create new flavours of ice cream
 - C. To improve financials
 - D. To manage distribution
63. What are forecasts?
- A. Predictions made on the basis of time-series information
 - B. Time-stamped information collected at a particular frequency
 - C. Reveals the degree to which variables are related
 - D. All of the above
64. What is a technique used to divide an information set into mutually exclusive groups such that the members of each group are as close together as possible to one another and the different groups are as far apart as possible?
- A. Association detection
 - B. Market basket analysis
 - C. Cluster analysis
 - D. Intelligent agent
65. What reveals the degree to which variables are related and the nature and frequency of these relationships in the information?
- A. Association detection
 - B. Market basket analysis
 - C. Cluster analysis
 - D. Intelligent agent
66. Which of the following represents market basket analysis?
- A. Analyzes Web site information
 - B. Analyzes checkout scanner information
 - C. Detects customers' buying behaviour
 - D. All of the above
67. What is time-series information?
- A. Analyzes checkout scanner information
 - B. Time-stamped information collected at a particular frequency
 - C. Reveals the degree to which variables are related
 - D. All of the above
68. Which of the following is a form of statistical analysis?
- A. Forecasting
 - B. Market basket analysis
 - C. Cluster analysis
 - D. All of the above
69. Which of the following is data visualization?
- A. Data in the form of Venn diagrams
 - B. Graphical representation of taxonomy of ideas representing the data
 - C. Schematic representation of data
 - D. All of the above

70. The data warehouse is a location for all of a business's information.
True **False**
71. Information are raw facts that describe the characteristics of an event.
True **False**
72. Transactional data encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.
True **False**
73. Analytical information, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.
True False
74. High-quality data and information can significantly improve the chances of making a good decision and directly increase an organization's bottom line.
True False
75. A key idea within data warehousing is to take data from multiple platforms/technologies and place them in a common location that uses a common querying tool.
True False
76. Analysis latency is the time it takes a human to comprehend the analytic result and determine an appropriate action.
True **False**
77. Data latency is the time from which the analytical information is made available to the time when analysis is complete.
True **False**
78. Intangible benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing.
True False
79. Organizational information comes at different levels and in different formats and granularities.
True False
80. Reports for each sales person, product, and part are examples of detail or fine information granularities.
True False
81. A foreign key is a field (or group of fields) that uniquely identifies a given entity in a table.
True **False**
82. One of the advantages found in a relational database is increased information redundancy.
True **False**
83. Relational integrity constraints are rules that enforce basic and fundamental information-based constraints.
True False
84. Ideally, an organization only wants to build forward integrations.
True **False**
85. The primary purpose of a data warehouse is to perform transactional processes.
True **False**
86. Extraction, transformation, and loading is a process that extracts information from internal databases, transforms the information using a common set of enterprise definitions, and loads the information into an external database.
True **False**

87. A dimension is a particular attribute of information.
True False
88. A *cube* is the common term for the representation of multi-dimensional information.
True False
89. Data visualization is a kind of information aesthetics.
True False
90. _____ are predictions made on the basis of time-series information.

91. _____ are raw facts that describe the characteristics of an event.

92. _____, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.

93. _____ encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.

94. _____ data and information can significantly improve the chances of making a good decision and directly increase an organization's bottom line.

95. A key idea within _____ is to take data from multiple platforms/technologies and place them in a common location that uses a common querying tool.

96. _____ is the time it takes a human to comprehend the analytic result and determine an appropriate action.

97. _____ is the time from which the analytical information is made available to the time when analysis is complete.

98. _____ benefits can be evaluated through indirect evidence— improved customer service means new business from the same customer, and differentiated service brings new customers.

99. Organizational information comes in different _____, formats, and granularities.

100. Detail, summary, and _____ are the typical information granularities.

101. The _____ characteristic of high quality information ensures that all the values are correct.

102. The _____ characteristic of high quality information ensures that none of the values are missing.

103. The _____ characteristic of high quality information ensures that each transaction, entity, and event is represented only once.

104. The _____ characteristic of high quality information ensures that the information is current with respect to the business requirement.

105. The _____ database model is a type of database that stores its information in the form of logically related two-dimensional tables.

106. An entity class (often called a _____) in the relational database model is a collection of similar entities.

107. Customer ID, Customer Name, Contact Name, and Customer Phone are all types of _____.

108. A(n) _____ key in the relational database model is a primary key of one table that appears as an attribute in another table.

109. A _____ key is a field that uniquely identifies a given entity in a table.

110. The _____ view of information deals with the physical storage of information on a storage device such as a hard disk.

111. The _____ view of information focuses on how users logically access information to meet their particular business needs.

112. _____ is the duplication of information, or storing the same information in multiple places.

113. _____ integrity constraints are rules that enforce business rules vital to an organization's success.

114. _____ integrity is a measure of the quality of information.

115. A data warehouse is a _____ collection of information-gathered from many different operational databases that supports business analysis activities and decision-making tasks.

116. A data _____ contains a subset of data warehouse information.

117. A(n) _____ is a particular attribute of information.

118. A(n) _____ is the common term for the representation of multidimensional information.

119. Data Information in a data warehouse contains layers of columns and rows and this is known as _____ databases.

120. Data _____ is the process of analyzing data to extract information not offered by the raw data alone.

121. _____ cleansing or scrubbing is the process that weeds out and fixes or discards inconsistent, incorrect, or incomplete information.

122. Data warehousing is about extending the transformation of data into _____.

123. Market _____ analysis analyzes such items as Web sites and checkout scanner information to detect customers' buying behaviour and predicts future behaviour by identifying affinities among customers' choices of products and services.

124. _____ analysis performs such functions as information correlations, distributions, calculations, and variance analysis.

125. The best way to communicate information is via _____.

126. Describe three types of data-mining analysis capabilities.
127. List and describe the various benefits an organization can expect to receive from BI deployment?
128. Describe the broad levels, formats, and granularities of information.
129. List, describe, and provide an example of each of the five characteristics of high quality information.

130. List the four primary sources of low quality information.

131. Assess the impact of low quality information on an organization and the benefits of high quality information on an organization.

132. Evaluate the advantages of the relational database model.

133. Compare relational integrity constraints and business-critical integrity constraints.

134. Describe the role and purpose of a database management system.

135. Explain the primary difference between a database and a data warehouse.

- 136.Explain the multidimensional nature of data warehouses (and data marts) and the business value gained from multidimensional analysis.
- 137.Identify the importance of ensuring the cleanliness of information throughout an organization.
- 138.Explain why an organization cannot achieve 100 percent accurate and complete information.
- 139.Explain the relationship between business intelligence and a data warehouse.
- 140.What is data visualization?

07 Key

1. What are the different types of information?

- (p. 201)
- A. Levels, forms, granularities
 - B. Levels, forms, data
 - C. Levels, formats, granularities**
 - D. Data, formats, granularities

Levels, formats, and granularities are the different types of information.

*Chapter - Chapter 07 #1
Gradable: automatic
Learning Outcome: 7.1
Level: Easy*

2. Which of the following represents the different information levels?

- (p. 201)
- A. Detail, summary, aggregate
 - B. Document, presentation, spreadsheet, database
 - C. Individual, department, enterprise**
 - D. None of the above

The different information levels include individual, department, and enterprise.

*Chapter - Chapter 07 #2
Gradable: automatic
Learning Outcome: 7.1
Level: Easy*

3. Which of the following represents the different information formats?

- (p. 201)
- A. Detail, summary, aggregate
 - B. Document, presentation, spreadsheet, database**
 - C. Individual, department, enterprise
 - D. None of the above

The different information formats include document, presentation, spreadsheet, and database.

*Chapter - Chapter 07 #3
Gradable: automatic
Learning Outcome: 7.1
Level: Easy*

4. Which of the following represents the different information granularities?

- (p. 201)
- A. Detail, summary, aggregate**
 - B. Document, presentation, spreadsheet, database
 - C. Individual, department, enterprise
 - D. None of the above

The different information granularities include detail, summary, and aggregate.

*Chapter - Chapter 07 #4
Gradable: automatic
Learning Outcome: 7.1
Level: Easy*

5. Which of the following is the characteristic of quality information?

- (p. 204)
- A. Accuracy
 - B. Completeness
 - C. Consistency
 - D. All of the above**

Accuracy, completeness, consistency, uniqueness, and timeliness are the characteristics of high quality information.

Chapter - Chapter 07 #5
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

6. Which of the following is not one of the five characteristics common to high quality information?

- (p. 204)
- A. Accuracy
 - B. Completeness
 - C. Quantity**
 - D. Consistency

Accuracy, completeness, consistency, uniqueness, and timeliness are the characteristics of high quality information.

Chapter - Chapter 07 #6
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

7. Which of the following implies that aggregate or summary information is in agreement with detailed information?

- (p. 204)
- A. Uniqueness
 - B. Completeness
 - C. Consistency**
 - D. Accuracy

This is the definition of consistency as displayed in Figure 6.3.

Chapter - Chapter 07 #7
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

8. Which of the following implies that information is current with respect to the business requirement?

- (p. 204)
- A. Uniqueness
 - B. Accuracy
 - C. Consistency
 - D. Timeliness**

This is the definition of timeliness.

Chapter - Chapter 07 #8
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

9. What is it called when each transaction, entity, and event is represented only once in the information?
(p. 204)

- A.** Uniqueness
- B. Accuracy
- C. Consistency
- D. Timeliness

This is the definition of uniqueness.

Chapter - Chapter 07 #9
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

10. Which of the following can a database maintain information on?
(p. 206)

- A. Inventory
- B. Transactions
- C. Employees
- D.** All of the above

A database maintains information on inventory, transactions, and employees.

Chapter - Chapter 07 #10
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

11. Which of the following database structures stores information in a tree-like structure that allows repeating information using parent/child relationships, in such a way that it cannot have too many relationships?
(p. 206)

- A.** Hierarchical database
- B. Network database
- C. Relational database model
- D. All of the above

This is the definition of hierarchical database.

Chapter - Chapter 07 #11
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

12. Which of the following database structures offers a flexible way of representing objects and their relationships?
(p. 206)

- A. Hierarchical database
- B.** Network database
- C. Relational database model
- D. All of the above

This is the definition of network database model.

Chapter - Chapter 07 #12
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

13. In the relational database model, what is a person, place, thing, transaction, or event about which information is stored?
(p. 206)
- A.** Entity
 - B. Entity class
 - C. Attribute
 - D. Attribute class

This is the definition of entity.

Chapter - Chapter 07 #13
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

14. In the relational database model, what is a collection of similar entities?
(p. 206)
- A. Entity
 - B.** Entity class
 - C. Attribute
 - D. Attribute class

This is the definition of entity class.

Chapter - Chapter 07 #14
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

15. In the relational database model, what are characteristics or properties of an entity class?
(p. 206)
- A. Entity
 - B. Entity class
 - C.** Attribute
 - D. Attribute class

This is the definition of attribute.

Chapter - Chapter 07 #15
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

16. What are characteristics or properties of an entity class called?
(p. 206)
- A. Attributes
 - B. Fields
 - C. Columns
 - D.** All of the above

Attributes are also called fields or columns.

Chapter - Chapter 07 #16
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

17. Why do relational databases use primary keys and foreign keys?

(p. 206-207)

- A. To create a database
- B. To create physical relationships
- C. To create logical relationships**
- D. All of the above

Keys are used to create logical relationships.

Chapter - Chapter 07 #17
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

18. What is a primary key?

(p. 206)

- A. A field (or group of fields) that uniquely identifies a given entity in a table**
- B. A primary key of one table that appears as an attribute in another table and acts to provide a logical relationship among the two tables
- C. Characteristics or properties of an entity class
- D. A field (or group of fields) that uniquely identifies a given attribute in a table

This is the definition of primary key.

Chapter - Chapter 07 #18
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

19. What is a foreign key?

(p. 207)

- A. A field (or group of fields) that uniquely identifies a given entity in a table
- B. A primary key of one table that appears as an attribute in another table and acts to provide a logical relationship among the two tables**
- C. Characteristics or properties of an entity class
- D. A field (or group of fields) that uniquely identifies a given attribute in a table

This is the definition of foreign key.

Chapter - Chapter 07 #19
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

20. All of the following are advantages of database-stored information, except:

(p. 208)

- A. Increased flexibility
- B. Increased performance
- C. Increased information redundancy**
- D. Increased information integrity

Database-stored information reduces information redundancy.

Chapter - Chapter 07 #20
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

21. Which of the following is incorrect in reference to a database?

(p. 208)

- A. Can be relational or network
- B. Information is accessed by logical structure
- C. Information is accessed by physical structure**
- D. Users can access different views of information

A database accesses information by logical structure and stores information by physical structure.

Chapter - Chapter 07 #21
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

22. What is the physical view of information?

(p. 208)

- A. Deals with the physical storage of information on a storage device such as a hard disk**
- B. Deals with the logical storage of information on a storage device such as a hard disk
- C. Focuses on how users logically access information to meet their particular business needs
- D. Focuses on how users physically access information to meet their particular business needs

This is the definition of physical view.

Chapter - Chapter 07 #22
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

23. Which of the following is correct in reference to a database?

(p. 208)

- A. A database can support only one logical view
- B. A database can support many physical views
- C. A database can support many logical views**
- D. A database can support up to 3 logical views

A database can support many logical views.

Chapter - Chapter 07 #23
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

24. What refers to how well a system can adapt to increased demands?

(p. 208)

- A. Scalability**
- B. Performance
- C. Redundancy
- D. Information integrity

This is the definition of scalability.

Chapter - Chapter 07 #24
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

25. Which of the following measures how quickly a system performs a certain process or transaction?
(p. 208)
- A. Scalability
 - B. Performance**
 - C. Redundancy
 - D. Information integrity

This is the definition of performance.

Chapter - Chapter 07 #25
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

26. What is information redundancy?
(p. 208)
- A. Duplication of information
 - B. Storing the same information in multiple places
 - C. Storing duplicate information in multiple places
 - D. All of the above**

Redundancy is all of the above.

Chapter - Chapter 07 #26
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

27. What is the primary problem with redundant information?
(p. 208)
- A. It is difficult to determine which values are the most current
 - B. It is often inconsistent
 - C. It is difficult to determine which values are the most accurate
 - D. All of the above**

All of the above are problems with redundant information.

Chapter - Chapter 07 #27
Gradable: automatic
Learning Outcome: 7.2
Level: Hard

28. Which of the following is true in regards to the elimination of redundant information?
(p. 208)
- A. Uses additional hard disk space
 - B. Makes performing information updates harder
 - C. Improves information quality**
 - D. All of the above

Eliminating redundant information improves the quality of the information, uses less hard disk space, and makes performing updates easier.

Chapter - Chapter 07 #28
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

29. What are the rules that help ensure the quality of information?

(p. 208)

- A. Information integrity
- B. Integrity constraints**
- C. Relational integrity constraints
- D. Business-critical integrity constraints

This is the definition of integrity constraints.

Chapter - Chapter 07 #29
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

30. What are rules that enforce basic and fundamental information-based constraints?

(p. 209)

- A. Information integrity
- B. Integrity constraint
- C. Business-critical integrity constraint
- D. Relational integrity constraint**

This is the definition of relational integrity constraints.

Chapter - Chapter 07 #30
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

31. Which of the following is a valid type of integrity constraint?

(p. 209)

- A. Performance integrity constraint
- B. Scalability integrity constraint
- C. Physical integrity constraint
- D. Business-critical integrity constraint**

Business-critical integrity constraint is valid.

Chapter - Chapter 07 #31
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

32. What type of integrity constraint does not allow someone to create an order for a nonexistent customer?

(p. 209)

- A. Relational integrity constraint**
- B. Business-critical integrity constraint
- C. Information-critical integrity constraint
- D. None of the above

This is an example of relational integrity constraints.

Chapter - Chapter 07 #32
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

33. All of the following are relational integrity constraints, except
(p. 209)
- A. System will not allow an entry for an order for a nonexistent customer
 - B.** System will not allow returns of fresh produce after 15 days past delivery
 - C. System will not allow shipping a product to a customer who does not have a valid address
 - D. Systems will not allow shipping of a nonexistent product to a customer

Business-critical integrity constraint will not allow a return of fresh produce after 15 days. A and C represent relational integrity constraints.

Chapter - Chapter 07 #33
Gradable: automatic
Learning Outcome: 7.2
Level: Medium

34. Which of the following uses a DBMS to interact with a database?
(p. 209)
- A. Users of accounting programs
 - B. Users of human resource programs
 - C. Users of marketing programs
 - D.** All of the above

Interacting directly and indirectly with a database through a DBMS figure displays these three types of database interactions.

Chapter - Chapter 07 #34
Gradable: automatic
Learning Outcome: 7.3
Level: Easy

35. What directly accesses a database?
(p. 209)
- A. Accounting system users
 - B.** DBMS
 - C. Finance system users
 - D. All of the above

Only the DBMS can directly access a database, users access the DBMS.

Chapter - Chapter 07 #35
Gradable: automatic
Learning Outcome: 7.3
Level: Hard

36. When Wal-Mart receives inventory to an individual store, this would be an example of using
(p. 202) _____?
- A. Analytical information
 - B.** Transactional data
 - C. Real-time data
 - D. Real-time information

Transactional data encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.

Chapter - Chapter 07 #36
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

37. When Wal-Mart reviews their monthly sales totals and profits by province, this would be an example of using _____?
(p. 202)
- A.** Analytical information
 - B. Transactional data
 - C. Real-time data
 - D. Real-time information

Analytical information, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.

Chapter - Chapter 07 #37
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

38. When the Royal Bank immediately updates your bank deposit of \$500 into your account, this would be an example of _____?
(p. 203)
- A. Analytical information
 - B. Transactional data
 - C.** Real-time data
 - D. Real-time information

Real-time data is immediate, up-to-date data

Chapter - Chapter 07 #38
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

39. What is the time duration to make transactional data ready for analysis, and loading the summarized, aggregated, cleansed data into a data warehouse?
(p. 223)
- A.** Data latency
 - B. Analysis latency
 - C. Decision latency
 - D. None of the above

Data latency is the time duration to make transactional data ready for, and loading the summarized, aggregated, cleansed data into a data warehouse. All this can take time depending on the state of the transactional data to begin with.

Chapter - Chapter 07 #39
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

40. What is the time from which the analytical information is made available to the time when analysis is complete?
(p. 223)
- A. Data latency
 - B.** Analysis latency
 - C. Decision latency
 - D. None of the above

Analysis latency is the time from which the analytical information is made available to the time when analysis is complete.

Chapter - Chapter 07 #40
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

41. What is the time it takes a human to comprehend the analytic result and determine an appropriate action?
(p. 223)
- A. Data latency
 - B. Analysis latency
 - C. Decision latency**
 - D. None of the above

Decision latency is the time it takes a human to comprehend the analytic result and determine an appropriate action.

Chapter - Chapter 07 #41
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

42. What benefits include working time saved in producing reports, selling information to suppliers, and so on?
(p. 228)
- A. Direct quantifiable benefits**
 - B. Indirect quantifiable benefits
 - C. Unpredictable benefits
 - D. Intangible benefits

Direct quantifiable benefits include working time saved in producing reports, selling information to suppliers, and so on.

Chapter - Chapter 07 #42
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

43. What benefits can be evaluated through indirect evidence—improved customer service means new business from the same customer, and differentiated service brings new customers?
(p. 228)
- A. Direct quantifiable benefits
 - B. Indirect quantifiable benefits**
 - C. Unpredictable benefits
 - D. Intangible benefits

Indirect quantifiable benefits can be evaluated through indirect evidence—improved customer service means new business from the same customer, and differentiated service brings new customers.

Chapter - Chapter 07 #43
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

44. What benefits are the result of discoveries made by creative users?
(p. 228)
- A. Direct quantifiable benefits
 - B. Indirect quantifiable benefits
 - C. Unpredictable benefits**
 - D. Intangible benefits

Unpredictable benefits are the result of discoveries made by creative users

Chapter - Chapter 07 #44
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

45. What benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing?
(p. 228)
- A. Direct quantifiable benefits
 - B. Indirect quantifiable benefits
 - C. Unpredictable benefits
 - D. Intangible benefits**

Intangible benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing.

Chapter - Chapter 07 #45
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

46. What is a forward integration?
(p. 212)
- A. Takes information entered into a given system and sends it to the application generation component
 - B. Takes information entered into a given system and sends it automatically to all downstream systems and processes**
 - C. Takes information entered into a given system and sends it automatically to all upstream systems and processes
 - D. Takes information entered into a given system and sends it to the DBMS

This is the definition of forward integration.

Chapter - Chapter 07 #46
Gradable: automatic
Learning Outcome: 7.3
Level: Easy

47. What is a backward integration?
(p. 212)
- A. Takes information entered into a given system and sends it to the application generation component
 - B. Takes information entered into a given system and sends it automatically to all downstream systems and processes
 - C. Takes information entered into a given system and sends it automatically to all upstream systems and processes**
 - D. Takes information entered into a given system and sends it to the DBMS

This is the definition of backward integration.

Chapter - Chapter 07 #47
Gradable: automatic
Learning Outcome: 7.3
Level: Easy

48. What is an integration?
(p. 212)
- A. Allows separate systems to communicate directly with each other**
 - B. Takes information entered into a given system and sends it to the database
 - C. Takes information entered into a given system and sends it to other processes
 - D. Takes information entered into a given system and sends it to the DBMS

This is the definition of integration.

Chapter - Chapter 07 #48
Gradable: automatic
Learning Outcome: 7.3
Level: Easy

49. A data warehouse is a _____ collection of information-gathered from many different _____ databases-that supports business analysis activities and decision-making tasks.
(p. 214)
- A. Physical; transactional
 - B. Physical; operational
 - C. Logical; transactional
 - D. Logical; operational**

This is the definition of data warehouse.

Chapter - Chapter 07 #49
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

50. All of the following are reasons why operational systems are not appropriate for business analysis, except:
(p. 214)
- A. Does not include information from other operational applications
 - B. Operational systems are integrated**
 - C. Operational information is mainly current
 - D. Operational information frequently has quality issues

Operational systems are not integrated

Chapter - Chapter 07 #50
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

51. Bill Inmon, known as the "Father of Data Warehousing" described a Data Warehouse as a collection of data that is:
(p. 214)
- A. subject-oriented
 - B. integrated and time-variant
 - C. non-volatile
 - D. All of the above**

A data warehouse is a subject-oriented, integrated, time-variant and non-volatile collection of data.

Chapter - Chapter 07 #51
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

52. Which of the following describes ETL?
(p. 215)
- A. A process that extracts information from internal and external databases
 - B. A process that transforms information using a common set of enterprise definitions
 - C. A process that loads information into a data warehouse
 - D. All of the above**

All of the above describe ETL.

Chapter - Chapter 07 #52
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

53. What is data mining?
(p. 224)
- A. The common term for the representation of multidimensional information
 - B. A particular attribute of information
 - C. Uses a variety of techniques to find patterns and relationships in large volumes of information and infer rules from them that predict future behaviour and guide decision making
 - D.** Process of analyzing data to extract information not offered by the raw data alone

Data mining is the process of analyzing data to extract information not offered by the raw data alone.

Chapter - Chapter 07 #53
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

54. What does the Data Warehousing Institute estimate that low-quality information costs U.S. businesses annually?
(p. 217)
- A. \$500 million
 - B. \$60 billion
 - C.** hundred of billions of dollars
 - D. It is impossible to determine

The Data Warehousing Institute estimates that low-quality information costs U.S. businesses hundreds of billions of dollars annually?

Chapter - Chapter 07 #54
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

55. When does information cleansing occur in the data warehouse?
(p. 217)
- A. During the ETL process
 - B. On the information, once it is in the data warehouse
 - C.** During the ETL process and once it is in the data warehouse
 - D. During the ETL process and before it is in the data warehouse

Information cleansing occurs during the ETL process and on the information once it is in the data warehouse.

Chapter - Chapter 07 #55
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

56. Which of the following statements is true regarding customer information?
(p. 217)
- A. Customer information can exist in several operational systems
 - B. Customer information in each operational system could change
 - C. Customer information in each operational system can be different
 - D.** All of the above

All of the above are true in respect to customer information.

Chapter - Chapter 07 #56
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

57. Which of the following occurs during data cleansing?

(p. 218)

- A. Clean missing records
- B. Clean redundant records
- C. Clean inaccurate data
- D. All of the above**

The figure on information cleansing activities highlights the steps that occur during information cleansing.

Chapter - Chapter 07 #57
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

58. Which of the following statements is true?

(p. 218)

- A. The more complete an organization wants to get its information, the less it costs
- B. The more accurate an organization wants to get its information, the less it costs
- C. The less accurate an organization wants to get its information, the more it costs
- D. The more complete and accurate an organization wants to get its information, the more it costs**

The more complete and accurate an organization wants to get its information, the more it costs.

Chapter - Chapter 07 #58
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

59. What is information that people use to support their decision-making efforts?

(p. 219)

- A. Information cleansing and scrubbing
- B. Data-mining tools
- C. Data mining
- D. Business intelligence**

This is the definition of business intelligence.

Chapter - Chapter 07 #59
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

60. Which of the following does not draw a parallel between the challenges in business and the challenges of war?

(p. 219)

- A. Collecting information
- B. Discerning patterns and meaning in the information
- C. Accurate and complete information**
- D. Responding to the resultant information

Accurate and complete information is not one of the parallels between the challenges in business and those of war.

Chapter - Chapter 07 #60
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

61. Which company uses statistical analysis to automatically detect potential issues, provide quick and easy access to reports, and perform multidimensional analysis on all warranty information?
(p. 225)
- A. Burlington Northern and Santa Fe Railroad
 - B. BostonCoach
 - C. Verizon Communications
 - D. Whirlpool**

Whirlpool's warranty analysis tool uses statistical analysis to automatically detect potential issues, provide quick and easy access to reports, and perform multi-dimensional analysis on all warranty information.

Chapter - Chapter 07 #61
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

62. Why is Ben & Jerry's using business intelligence?
(p. 229)
- A. To improve quality**
 - B. To create new flavours of ice cream
 - C. To improve financials
 - D. To manage distribution

The closing case discusses how Ben & Jerry's uses BI to track quality control.

Chapter - Chapter 07 #62
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

63. What are forecasts?
(p. 226)
- A. Predictions made on the basis of time-series information**
 - B. Time-stamped information collected at a particular frequency
 - C. Reveals the degree to which variables are related
 - D. All of the above

This is the definition of forecast.

Chapter - Chapter 07 #63
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

64. What is a technique used to divide an information set into mutually exclusive groups such that the members of each group are as close together as possible to one another and the different groups are as far apart as possible?
(p. 225)
- A. Association detection
 - B. Market basket analysis
 - C. Cluster analysis**
 - D. Intelligent agent

This is the definition of cluster analysis.

Chapter - Chapter 07 #64
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

65. What reveals the degree to which variables are related and the nature and frequency of these relationships in the information?
(p. 225)
- A.** Association detection
 - B. Market basket analysis
 - C. Cluster analysis
 - D. Intelligent agent

This is the definition of association detection.

Chapter - Chapter 07 #65
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

66. Which of the following represents market basket analysis?
(p. 226)
- A. Analyzes Web site information
 - B. Analyzes checkout scanner information
 - C. Detects customers' buying behaviour
 - D.** All of the above

This is the definition of market basket analysis.

Chapter - Chapter 07 #66
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

67. What is time-series information?
(p. 226)
- A. Analyzes checkout scanner information
 - B.** Time-stamped information collected at a particular frequency
 - C. Reveals the degree to which variables are related
 - D. All of the above

This is the definition of time-series information.

Chapter - Chapter 07 #67
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

68. Which of the following is a form of statistical analysis?
(p. 226)
- A.** Forecasting
 - B. Market basket analysis
 - C. Cluster analysis
 - D. All of the above

Forecasting is a form of statistical analysis.

Chapter - Chapter 07 #68
Gradable: automatic
Learning Outcome: 7.5
Level: Hard

69. Which of the following is data visualization?
(p. 229) A. Data in the form of Venn diagrams
B. Graphical representation of taxonomy of ideas representing the data
C. Schematic representation of data
D. All of the above

Visual representation of data.

Chapter - Chapter 07 #69
Gradable: automatic
Learning Outcome: 7.5
Level: Hard

70. The data warehouse is a location for all of a business's information.
(p. 214) **FALSE**

The data warehouse is not a location for all of a business's information.

Chapter - Chapter 07 #70
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

71. Information are raw facts that describe the characteristics of an event.
(p. 200) **FALSE**

Data are raw facts that describe the characteristics of an event.

Chapter - Chapter 07 #71
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

72. Transactional data encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.
(p. 202) **FALSE**

Transactional data encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.

Chapter - Chapter 07 #72
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

73. Analytical information, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.
(p. 202) **TRUE**

Analytical information, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.

Chapter - Chapter 07 #73
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

74. High-quality data and information can significantly improve the chances of making a good decision and directly increase an organization's bottom line.

(p. 203)

TRUE

High-quality data and information can significantly improve the chances of making a good decision and directly increase an organization's bottom line.

Chapter - Chapter 07 #74
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

75. A key idea within data warehousing is to take data from multiple platforms/technologies and place them in a common location that uses a common querying tool.

(p. 214)

TRUE

A key idea within data warehousing is to take data from multiple platforms/technologies and place them in a common location that uses a common querying tool.

Chapter - Chapter 07 #75
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

76. Analysis latency is the time it takes a human to comprehend the analytic result and determine an appropriate action.

(p. 223)

FALSE

Analysis latency is the time from which the analytical information is made available to the time when analysis is complete.

Chapter - Chapter 07 #76
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

77. Data latency is the time from which the analytical information is made available to the time when analysis is complete.

(p. 223)

FALSE

Data latency is the time duration to make transactional data ready for analysis, and loading the summarized, aggregated, cleansed data into a data warehouse.

Chapter - Chapter 07 #77
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

78. Intangible benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing.

(p. 228)

TRUE

Intangible benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing.

Chapter - Chapter 07 #78
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

79. Organizational information comes at different levels and in different formats and granularities.
(p. 201) **TRUE**

Employees must be able to correlate the different formats, levels, and granularities of information.

Chapter - Chapter 07 #79
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

80. Reports for each sales person, product, and part are examples of detail or fine information granularities.
(p. 201) **TRUE**

Information granularities include detailed (or fine) information such as reports for each sales person, product, or parts.

Chapter - Chapter 07 #80
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

81. A foreign key is a field (or group of fields) that uniquely identifies a given entity in a table.
(p. 207) **FALSE**

A primary key is a field (or group of fields) that uniquely identifies a given entity in a table.

Chapter - Chapter 07 #81
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

82. One of the advantages found in a relational database is increased information redundancy.
(p. 208) **FALSE**

Relational databases reduce information redundancy, not increase information redundancy.

Chapter - Chapter 07 #82
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

83. Relational integrity constraints are rules that enforce basic and fundamental information-based constraints.
(p. 209) **TRUE**

This is the definition of relational integrity constraints.

Chapter - Chapter 07 #83
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

84. Ideally, an organization only wants to build forward integrations.
(p. 212) **FALSE**

Ideally, an organization wants to build both forward and backward integrations.

Chapter - Chapter 07 #84
Gradable: automatic
Learning Outcome: 7.3
Level: Medium

85. The primary purpose of a data warehouse is to perform transactional processes.
(p. 215) **FALSE**

The primary purpose of a data warehouse is to perform analytical process.

Chapter - Chapter 07 #85
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

86. Extraction, transformation, and loading is a process that extracts information from internal databases, transforms the information using a common set of enterprise definitions, and loads the information into an external database.
(p. 215) **FALSE**

Extraction, transformation, and loading is a process that extracts information from internal and external databases, transforms the information using a common set of enterprise definitions, and loads the information into a data warehouse.

Chapter - Chapter 07 #86
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

87. A dimension is a particular attribute of information.
(p. 215) **TRUE**

This is the definition of dimension.

Chapter - Chapter 07 #87
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

88. A *cube* is the common term for the representation of multi-dimensional information.
(p. 215) **TRUE**

This is the definition of cube.

Chapter - Chapter 07 #88
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

89. Data visualization is a kind of information aesthetics.
(p. 229) **TRUE**

This is the definition of data visualization.

Chapter - Chapter 07 #89
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

90. _____ are predictions made on the basis of time-series information.
(p. 226) **Forecasts**

Chapter - Chapter 07 #90
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

91. _____ are raw facts that describe the characteristics of an event.

(p. 200) **Data**

Chapter - Chapter 07 #91
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

92. _____, on the other hand, encompasses all organizational information, and its primary purpose is to support the performing of higher-level analysis tasks.

(p. 202) **Analytical information**

Chapter - Chapter 07 #92
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

93. _____ encompasses all of the data contained within a single business process or unit of work, and its primary purpose is to support the performing of daily operational tasks.

(p. 202) **Transactional data**

Chapter - Chapter 07 #93
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

94. _____ data and information can significantly improve the chances of making a good decision and directly increase an organization's bottom line.

(p. 203) **High-quality**

Chapter - Chapter 07 #94
Gradable: automatic
Learning Outcome: 7.1
Level: Medium

95. A key idea within _____ is to take data from multiple platforms/technologies and place them in a common location that uses a common querying tool.

(p. 214) **data warehousing**

Chapter - Chapter 07 #95
Gradable: automatic
Learning Outcome: 7.4
Level: Medium

96. _____ is the time it takes a human to comprehend the analytic result and determine an appropriate action.

(p. 223) **Decision latency**

Chapter - Chapter 07 #96
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

97. _____ is the time from which the analytical information is made available to the time when analysis is complete.

(p. 223) **Analysis latency**

Chapter - Chapter 07 #97
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

98. _____ benefits can be evaluated through indirect evidence—improved customer service means new business from the same customer, and differentiated service brings new customers.

(p. 228) **Indirect quantifiable**

Chapter - Chapter 07 #98
Gradable: automatic
Learning Outcome: 7.5
Level: Medium

99. Organizational information comes in different _____, formats, and granularities.

(p. 201) **Levels**

Chapter - Chapter 07 #99
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

100. Detail, summary, and _____ are the typical information granularities.

(p. 201) **Aggregate**

Chapter - Chapter 07 #100
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

101. The _____ characteristic of high quality information ensures that all the values are correct.

(p. 204) **Accuracy**

Chapter - Chapter 07 #101
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

102. The _____ characteristic of high quality information ensures that none of the values are missing.

(p. 204) **Completeness**

Chapter - Chapter 07 #102
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

103. The _____ characteristic of high quality information ensures that each transaction, entity, and event is represented only once.

(p. 204) **Uniqueness**

Chapter - Chapter 07 #103
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

104. The _____ characteristic of high quality information ensures that the information is current with respect to the business requirement.

(p. 204) **Timeliness**

Chapter - Chapter 07 #104
Gradable: automatic
Learning Outcome: 7.1
Level: Easy

105. The _____ database model is a type of database that stores its information in the form of logically related two-dimensional tables.

(p. 206) **Relational**

Chapter - Chapter 07 #105
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

106. An entity class (often called a _____) in the relational database model is a collection of similar entities.

(p. 206) **Table**

Chapter - Chapter 07 #106
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

107. Customer ID, Customer Name, Contact Name, and Customer Phone are all types of _____.

(p. 206) **Attributes**

Chapter - Chapter 07 #107
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

108. A(n) _____ key in the relational database model is a primary key of one table that appears as an attribute in another table.

(p. 207) **Foreign**

Chapter - Chapter 07 #108
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

109. A _____ key is a field that uniquely identifies a given entity in a table.

(p. 207) **Primary**

Chapter - Chapter 07 #109
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

110. The _____ view of information deals with the physical storage of information on a storage device such as a hard disk.

(p. 208) **Physical**

Chapter - Chapter 07 #110
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

111. The _____ view of information focuses on how users logically access information to meet their particular business needs.

(p. 208) **Logical**

Chapter - Chapter 07 #111
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

112. _____ is the duplication of information, or storing the same information in multiple places.

(p. 208) **Redundancy**

Chapter - Chapter 07 #112
Gradable: automatic
Learning Outcome: 7.3
Level: Easy

113. _____ integrity constraints are rules that enforce business rules vital to an organization's success.

(p. 209) **Business-critical**

Chapter - Chapter 07 #113
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

114. _____ integrity is a measure of the quality of information.

(p. 208-209) **Information**

Chapter - Chapter 07 #114
Gradable: automatic
Learning Outcome: 7.2
Level: Easy

115. A data warehouse is a _____ collection of information-gathered from many different operational databases that supports business analysis activities and decision-making tasks.

(p. 214) **Logical**

Chapter - Chapter 07 #115
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

116. A data _____ contains a subset of data warehouse information.

(p. 215) **Mart**

Chapter - Chapter 07 #116
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

117. A(n) _____ is a particular attribute of information.

(p. 216) **Dimension**

Chapter - Chapter 07 #117
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

118. A(n) _____ is the common term for the representation of multidimensional information.
(p. 216) **Cube**

Chapter - Chapter 07 #118
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

119. Data Information in a data warehouse contains layers of columns and rows and this is known as _____ databases.
(p. 216) **Multidimensional**

Chapter - Chapter 07 #119
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

120. Data _____ is the process of analyzing data to extract information not offered by the raw data alone.
(p. 224) **Mining**

Chapter - Chapter 07 #120
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

121. _____ cleansing or scrubbing is the process that weeds out and fixes or discards inconsistent, incorrect, or incomplete information.
(p. 217) **Information**

Chapter - Chapter 07 #121
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

122. Data warehousing is about extending the transformation of data into _____.
(p. 217) **Information**

Chapter - Chapter 07 #122
Gradable: automatic
Learning Outcome: 7.4
Level: Easy

123. Market _____ analysis analyzes such items as Web sites and checkout scanner information to detect customers' buying behaviour and predicts future behaviour by identifying affinities among customers' choices of products and services.
(p. 226) **Basket**

Chapter - Chapter 07 #123
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

124. _____ analysis performs such functions as information correlations, distributions, calculations, and variance analysis.
(p. 226) **Statistical**

Chapter - Chapter 07 #124
Gradable: automatic
Learning Outcome: 7.5
Level: Easy

125. The best way to communicate information is via _____.
(p. 229) **Data Visualization**

Chapter - Chapter 07 #125
Gradable: automatic
Learning Outcome: 7.5
Level: Hard

126. Describe three types of data-mining analysis capabilities.

(p. 224-227)

(1) Cluster analysis is a technique used to divide an information set into mutually exclusive groups such that the members of each group are as close together as possible to one another and the different groups are as far apart as possible. (2) Association detection reveals the degree to which variables are related and the nature and frequency of these relationships in the information. (3) Statistical analysis performs such functions as information correlations, distributions, calculations, and variance analysis.

Chapter - Chapter 07 #126
Gradable: manual
Learning Outcome: 7.5
Level: Medium

127. List and describe the various benefits an organization can expect to receive from BI deployment?

(p. 227)

Direct quantifiable benefits include working time saved in producing reports, selling information to suppliers, and so on.

Indirect quantifiable benefits can be evaluated through indirect evidence—improved customer service means new business from the same customer, and differentiated service brings new customers.

Unpredictable benefits are the result of discoveries made by creative users.

Intangible benefits include improved communication throughout the enterprise, improved job satisfaction of empowered users, and improved knowledge sharing.

Chapter - Chapter 07 #127
Gradable: manual
Learning Outcome: 7.5
Level: Medium

128. Describe the broad levels, formats, and granularities of information.

(p. 201)

Information levels include individual, department, and enterprise. Information format include document, presentation, spreadsheet, and database. Information granularities include detail, summary, and aggregate.

Chapter - Chapter 07 #128
Gradable: manual
Learning Outcome: 7.1
Level: Easy

129. List, describe, and provide an example of each of the five characteristics of high quality information.

(p. 203-204)

Accuracy determines if all values are correct. Example-is the name spelled correctly? Completeness determines if any values are missing. Example-is the address complete? Consistency ensures that aggregate or summary information is in agreement with detailed information. Example-do totals equal the true total of the individual fields? Uniqueness ensures that each transaction, entity, and event is represented only once in the information. Example-are there any duplicate customers? Timeliness determines if the information is current with respect to the business requirement. Example-is the information updated weekly?

Chapter - Chapter 07 #129
Gradable: manual
Learning Outcome: 7.1
Level: Easy

130. List the four primary sources of low quality information.

(p. 204)

(1) Online customers intentionally enter inaccurate information to protect their privacy. (2) Information from different systems that have different information entry standards and formats. (3) Call center operators enter abbreviated or erroneous information by accident or to save time. (4) Third party and external information contains inconsistencies, inaccuracies, and errors.

Chapter - Chapter 07 #130
Gradable: manual
Learning Outcome: 7.1
Level: Medium

131. Assess the impact of low quality information on an organization and the benefits of high quality information on an organization.

(p. 204)

Using the wrong information can lead to making the wrong decision. Making the wrong decision can cost time, money, and even reputations. Business decisions are only as good as the information used to make the decision. Low quality information leads to low quality business decisions. High quality information can significantly improve the chances of making a good business decision and directly effect an organization's bottom line.

Chapter - Chapter 07 #131
Gradable: manual
Learning Outcome: 7.1
Level: Medium

132. Evaluate the advantages of the relational database model.

(p. 208)

Database advantages from a business perspective include increased flexibility, increased scalability and performance, reduced information redundancy, increased information integrity (quality), and increased information security.

Chapter - Chapter 07 #132
Gradable: manual
Learning Outcome: 7.2
Level: Easy

133. Compare relational integrity constraints and business-critical integrity constraints.

(p. 209)

Relational integrity constraints are rules that enforce basic and fundamental information-based constraints. Business-critical integrity constraints are rules that enforce business rules vital to an organization's success and often require more insight and knowledge than operational integrity constraints

Chapter - Chapter 07 #133
Gradable: manual
Learning Outcome: 7.2
Level: Easy

134. Describe the role and purpose of a database management system.

(p. 209-210)

A database management system (DBMS) is software through which users and application programs interact with a database. The user sends requests to the DBMS and the DBMS performs the actual manipulation of the information in the database. There are two primary ways that users can interact with a DBMS, directly and indirectly.

Chapter - Chapter 07 #134
Gradable: manual
Learning Outcome: 7.2
Level: Easy

135. Explain the primary difference between a database and a data warehouse.

(p. 214-215)

The primary difference between a database and a data warehouse is that a database stores information for a single application, whereas a data warehouse stores information from multiple databases, or multiple applications, and external information such as industry information. This enables cross-functional analysis, industry analysis, market analysis, etc. all from a single repository. Data warehouses support only analytical processing (OLAP).

Chapter - Chapter 07 #135
Gradable: manual
Learning Outcome: 7.4
Level: Easy

136. Explain the multidimensional nature of data warehouses (and data marts) and the business value gained from multidimensional analysis.

(p. 211)

Databases contain information in a series of two-dimensional tables, which means that you can only ever view two dimensions of information at one time. In a data warehouse and data mart, information is multidimensional, it contains layers of columns and rows. Each layer in a data warehouse or data mart represents information according to an additional dimension. Dimensions could include such things as products, promotions, stores, category, region, stock price, date, time, and even the weather. The ability to look at information from different dimensions can add tremendous business insight.

Chapter - Chapter 07 #136
Gradable: manual
Learning Outcome: 7.4
Level: Easy

137. Identify the importance of ensuring the cleanliness of information throughout an organization.

(p. 217)

An organization must maintain high quality information in the data warehouse. Information cleansing and scrubbing is a process that weeds out and fixes or discards inconsistent, incorrect, or incomplete information. Without high quality information the organization will be unable to make good business decisions.

Chapter - Chapter 07 #137
Gradable: manual
Learning Outcome: 7.4
Level: Easy

138. Explain why an organization cannot achieve 100 percent accurate and complete information.

(p. 218)

Achieving perfect information is almost impossible. The more complete and accurate an organization wants to get its information, the more it costs. The tradeoff between perfect information lies in accuracy versus completeness. Accurate information means it is correct, while complete information means there are no blanks. Most organizations determine a percentage high enough to make good decisions at a reasonable cost, such as 85% accurate and 65% complete.

Chapter - Chapter 07 #138
Gradable: manual
Learning Outcome: 7.4
Level: Easy

139. Explain the relationship between business intelligence and a data warehouse.

(p. 220)

A data warehouse is an enabler of business intelligence. The purpose of a data warehouse is to pull all kinds of disparate information into a single location where it is cleansed and scrubbed for analysis.

Chapter - Chapter 07 #139
Gradable: manual
Learning Outcome: 7.5
Level: Easy

140. What is data visualization?
(p. 229)

In recent years, *data visualization (information aesthetics)*, has developed. There are a number of different ways that people define data visualization, from a formal definition as the visual representation of "information which has been abstracted in some schematic form, including attributes or variables for the units of information" to simpler definitions like that of Vital Friedman who defines the main goal of data visualization as the ability to visualize data so that information can be communicated clearly and effectively. More recently there have been a number of authors that have tried to define data visualization with Venn-diagrams and other graphical approaches.

Chapter - Chapter 07 #140
Gradable: manual
Learning Outcome: 7.5
Level: Easy

07 Summary

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