

## Chapter 2: Database Concepts and Applications in HRIS

### Test Bank

#### Multiple Choice

1. One of the benefits of a relational database system is that
- a. end users who generally had limited programming experience can still utilize the query functionality
  - b. organizations can easily implement them
  - c. they are easy to maintain
  - d. they are a strategic HRM resource

Ans: A

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Relational DBMSs

Difficulty Level: Medium

2. The employee's name is an example of \_\_\_\_\_.

- a. an entity
- b. an attribute
- c. an object
- d. a primary key

Ans: B

Learning Objective: Know where data in a database are stored

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Entities and Attributes

Difficulty Level: Easy

3. Which of the following is NOT a shortcoming of early file-oriented database structures?

- a. data redundancy
- b. poor data control
- c. inadequate data manipulation capabilities
- d. inability to resemble manual recordkeeping

Ans: D

Learning Objective: Identify problems with early database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Early DBMSs

Difficulty Level: Easy

4. When a(n) \_\_\_\_\_ from one table is stored as an attribute of another table, that attribute is called a(n) \_\_\_\_\_.

- a. primary key; foreign key
- b. object; entity
- c. foreign key; primary key
- d. entity; attribution

Ans: A

Learning Objective: Know where data in a database are stored

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Relationships, Primary Keys, and Foreign Keys

Difficulty Level: Easy

5. HR metrics are

- a. various measures of organizational performance
- b. derived from organizational outcomes
- c. used to improve organizational efficiency and effectiveness
- d. all of these

Ans: D

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

6. \_\_\_\_\_ is a broad category of business applications and technologies for creating data warehouses and for analyzing and providing access to these specialized data to help enterprise users make better business decisions.

- a. Strategic planning
- b. Business intelligence
- c. Enterprise solution
- d. Data intelligence

Ans: B

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

7. Queries are important because

- a. they are a way to store data
- b. they provide direction for strategic HR

- c. they allow you to present questions to the DBMS in a language it understands
- d. they allow you to manipulate information

Ans: C

Learning Objective: Know what a query is and discuss three different types of queries

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Queries

Difficulty Level: Easy

8. The database design process
- a. begins with determining what the users want
  - b. is a task that only upper management should manage
  - c. begins with a budget estimate
  - d. requires outside consultant services

Ans: A

Learning Objective: Discuss the key steps involved in designing a simple database in Microsoft (MS) Access

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Designing an MS Access Database

Difficulty Level: Medium

9. Information is the \_\_\_\_\_ of data while knowledge is information that has been given \_\_\_\_\_.

- a. accumulation; structure
- b. meaning; structure
- c. interpretation; meaning
- d. understanding; definitions

Ans: C

Learning Objective: Discuss the difference between data, information, and knowledge

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Data, Information, and Knowledge

Difficulty Level: Medium

10. Functional units, management levels, and geographically dispersed locations may all have the need to \_\_\_\_\_.

- a. share data
- b. limit attributes in the database
- c. reduce database needs
- d. limit query functionality

Ans: A

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Relational DBMSs

Difficulty Level: Easy

11. The advent of the Internet and a standardized communication protocol have contributed to

- a. easier database programming
- b. data sharing across geographically dispersed locations
- c. the maximization of query functionality
- d. the elimination of a centralized database

Ans: B

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Data Sharing Across Locations

Difficulty Level: Easy

12. MS Access would be appropriate for an organization that

- a. had a small database and limited knowledge of database programming
- b. had a small database and extensive knowledge of database programming
- c. had a large database and limited knowledge of database programming
- d. had a large database and extensive knowledge of database programming

Ans: A

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: MS Access—An Illustrative Personal Database

Difficulty Level: Medium

13. Data processing systems that performed record-keeping functions that mimicked existing manual procedures were called \_\_\_\_\_.

- a. file-oriented data structures
- b. small database structures
- c. data warehouses
- d. electronic data storage

Ans: A

Learning Objective: Identify problems with early database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Early DBMSs

Difficulty Level: Easy

14. Patterns in large data sets are identified through \_\_\_\_\_.

- a. the creation of tables
- b. data gathering
- c. data mining
- d. electronic data storage

Ans: C

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

15. Business intelligence (BI) applications include \_\_\_\_\_.

- a. the activities of decision support systems
- b. query and reporting
- c. forecasting
- d. all of these

Ans: D

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

16. A(n) \_\_\_\_\_ allows you to ask a question based on one or more tables in a database.

- a. action query
- b. question query
- c. cross-tab query
- d. select query

Ans: D

Learning Objective: Know what a query is and discuss three different types of queries

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Queries

Difficulty Level: Easy

17. A shortcoming of hierarchical and network database systems was that

- a. only very knowledgeable technical staff members could interact with the database effectively
- b. relationships between records were explicitly maintained
- c. it replaced file-oriented structures
- d. it was electronically stored data

Ans: A

Learning Objective: Identify problems with early database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Early DBMSs  
Difficulty Level: Easy

### **True/False**

1. An attribute is a characteristic of the entity in a relational database.

Ans: T

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Key Relational Database Terminology

Difficulty Level: Medium

2. Data mining involves visually analyzing large data sets to identify recurring relationships.

Ans: F

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

3. A data warehouse is a special type of database that is optimized for reporting and analysis and is the raw material for management's decision support system.

Ans: T

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge

Cognitive Domain: Analysis

Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining

Difficulty Level: Hard

4. Attributes represent a single data element or characteristic of the data table.

Ans: T

Learning Objective: Know where data in a database are stored

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Tables

Difficulty Level: Easy

5. A foreign key represents the primary key from another table that is stored as an attribute in another table.

Ans: T

Learning Objective: Know where data in a database are stored

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Relationships, Primary Keys, and Foreign Keys

Difficulty Level: Easy

6. Relational database data is stored in tables where each table represents one “entity” in the real world, and the information associated with that “entity” is stored in that table. Tables are related to each other through a common attribute or key.

Ans: T

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Tables

Difficulty Level: Medium

7. Tables are used to store information about entities. Multiple tables are created for each entity.

Ans: F

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Tables

Difficulty Level: Medium

8. One of the benefits of a relational database system is that end users who generally had limited programming experience can still utilize the query functionality.

Ans: T

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Queries

Difficulty Level: Medium

9. The employee’s name is an example of an object.

Ans: F

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Entities and Attributes

Difficulty Level: Medium

10. MS Access would be appropriate for an organization that had a small database and limited knowledge of database programming.

Ans: T

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: MS Access—An Illustrative Personal Database

Difficulty Level: Medium

11. The advent of the Internet and a standardized communication protocol have contributed to easier database programming.

Ans: F

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Data Sharing Across Locations

Difficulty Level: Medium

12. The database design process begins with determining what the users want.

Ans: T

Learning Objective: Discuss the key steps involved in designing a simple database in Microsoft (MS) Access

AACSB Standard: Application of knowledge

Cognitive Domain: Comprehension

Answer Location: Designing an MS Access Database

Difficulty Level: Medium

## **Essay**

1. What are some examples of how an organization might use the data-sharing ability of a relational database system?

Ans: Examples can come from (1) data sharing between functional units, (2) data sharing between management levels, and (3) data sharing across geographically dispersed locations.

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Relational DMBSS

Difficulty Level: Easy

2. Provide some examples of actions that might be performed as a result of an action query.



Ans: Actions include updating data in the table (e.g., increasing the base salary of all employees who were rated above average in the latest performance rating), deleting records from the table (e.g., removing employees from the employees table if they no longer work at the company), or inserting records (e.g., the query may add a new set of benefits to the benefits table).

Learning Objective: Know what a query is and discuss three different types of queries

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Queries

Difficulty Level: Easy

### 3. What is meant by a cross-tab query?

Ans: A cross-tab query performs calculations on the values in a field and displays the results in a datasheet. The reason it is called *cross-tab* is that it tabulates the data for a set of descriptor attributes, contrasting them or crossing them in a table format.

Learning Objective: Know what a query is and discuss three different types of queries

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Queries

Difficulty Level: Easy

### 4. Compare the typical users of an action query with those of a cross-tab query.

Ans: Action queries improve the operational efficiency of managing and maintaining a database and are important to the operational staff but of less interest to HR managers and executives. Cross-tab queries provide the information that managers and executives expect.

Learning Objective: Know what a query is and discuss three different types of queries

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Queries

Difficulty Level: Easy

### 5. What are the implications for databases and data sharing in today's global environment?

Ans: In today's global environment, access to data from any physical location in the world is increasingly important. Computer networks are created that provide instant access to these operational data, allowing real-time managerial decision capability regardless of physical location.

A centralized database allows a company to confine its data to a single location and, therefore, to more easily control data integrity, updating, backup, query, and control access to the database. A company with many locations and telecommuters, however, must develop a communications infrastructure to facilitate data sharing over a wide geographical area. The advent of the Internet and a standardized communication protocol made the centralized database structures and geographically dispersed data sharing feasible.

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge  
Cognitive Domain: Knowledge  
Answer Location: Data Sharing Across Locations  
Difficulty Level: Easy

6. What were the benefits of relational database systems versus traditional file-oriented data structures?

Ans: Relational database systems eliminated the shortcomings of traditional file-oriented structures including (1) data redundancy—an employee's name and address could be stored in many different files; (2) poor data control—if you had access to the file, you had access to all of the data in the file, which may not be desirable because you may want to restrict the data viewed by a particular user; (3) inadequate data manipulation capabilities—it was very difficult to combine the data across files and to easily update and to add new data; and (4) excessive programming effort—any change in the data required extensive changes in the programming that accessed the data. Perhaps, the most significant difference between a file-based system and a relational database system is that data are easily shared.

Learning Objective: Understand what a relational database is and why it is better than older database structures

AACSB Standard: Application of knowledge  
Cognitive Domain: Comprehension  
Answer Location: Early DBMSs  
Difficulty Level: Medium

7. What is meant by *business intelligence*?

Ans: Business intelligence is a broad category of business applications and technologies for creating data warehouses and for analyzing and providing access to these specialized data to help enterprise users make better business decisions. BI applications include the activities of decision support systems, query and reporting, statistical analysis, forecasting, and data mining.

Learning Objective: Understand the difference between operational databases and a data warehouse

AACSB Standard: Application of knowledge  
Cognitive Domain: Analysis  
Answer Location: Data Integration: Database Warehouses, Business Intelligence, and Data Mining  
Difficulty Level: Hard

8. What are decision support systems, and what role do they play?

Ans: Decision support systems are software applications that use databases, primarily data warehouses, to assist senior managers and business professionals in making business decisions.

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge  
Cognitive Domain: Knowledge  
Answer Location: Data Sharing Between Different Levels

Difficulty Level: Easy

9. What is meant by a *hierarchical database*?

Ans: A hierarchical database is a database where the relationships among the data are created between sets of data based on where the data are stored in a record.

Learning Objective: Identify problems with early database structures

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Early DBMSs

Difficulty Level: Easy

10. What critical role does N-tier architecture provide to large, multinational companies?

Ans: N-tier architectures represent the software and hardware configuration in which databases and applications are distributed among many different computers around the world.

Learning Objective: Discuss three types of data sharing and why they are important

AACSB Standard: Application of knowledge

Cognitive Domain: Knowledge

Answer Location: Data Sharing Between Different Levels

Difficulty Level: Easy