Ch3Q1: Why are entity integrity and referential integrity important in a database?

1. Referential integrity ensures that each row is uniquely identified by the primary key.
2. Referential integrity means that, if the foreign key contains a value, that value refers to an existing valid tuple (row) in another relation.
3. Entity integrity means that, if the foreign key contains a value, that value refers to an existing valid tuple (row) in another relation.
4. Entity integrity ensures that each row is uniquely identified by the primary key.

Ch3Q2: A \_\_\_\_ key is defined as a key that is used strictly for data retrieval purposes.

a. lookup b. foreign c. candidate d. secondary

Ch3Q3: Briefly describe a candidate key:

A superkey that cannot be reduced down. It has no subset of attributes that can themselves be a superkey

Ch3Q4: Briefly explain why a data dictionary is necessary, and what should be included in a data dictionary."

The data dictionary has all the metadata and helps to find flaws in the database design. It has all the attribute names and characteristics for each table

Ch3Q5: A CUSTOMER table’s primary key is CUS\_CODE. The CUSTOMER primary key column has no null entries, and all entries are unique. This is an example of \_\_\_\_ integrity.

a. entity b. referential c. complete c. null

Ch3Q6: \_\_\_\_ combines all rows from two tables, excluding duplicate rows.

a. INTERSECT b. UNION c. DIFFERENCE d. SELECT

Ch3Q7: \_\_\_\_ yields only the rows that appear in both tables.

a. INTERSECT b. UNION c. DIFFERENCE d. SELECT

Ch3Q8: A(n) \_\_\_\_ join links tables by selecting only the rows with common values in their common attribute(s).

a. equal b. unique c. foreign d. natural

Ch3Q9: In an outer join, the matched pairs would be retained and any unmatched values in the other table would be left \_\_\_\_.

a. in another table b. null c. out of the results d. with matching values from the original table

Ch3Q10: A \_\_\_\_ contains at least all of the attribute names and characteristics for each table in the system.

a. data dictionary b. relational schema c. logical schema d. join

Ch3Q11: The \_\_\_\_ is actually a system-created database whose tables store the user/designer-created database characteristics and contents. (BTW, in MySQL that database is named "information\_schema.")

a. meta dictionary b. schema c. data dictionary d. system catalog

Ch3Q12: In a database context, a(n) \_\_\_\_ indicates the use of different names to describe the same attribute.

a. entity b. duplicate c. synonym d. homonym

Ch3Q13: \_\_\_\_ relational type is the “relational model ideal.”

a. 1:1 b. 1:M c. M:1 d. M:N

Ch3Q14: Since it is used to link the tables that originally were related in a M:N relationship, the composite entity structure includes—as foreign keys—at least the \_\_\_\_ keys of the tables that are to be linked.

a. composite b. super c. primary d. unique

Ch3Q15: When you define a table’s primary key, the DBMS automatically creates a(n) \_\_\_\_ index on the primary key column(s) you declared.

a. key b. incomplete c. unique d. primary

Chapter4:

Ch4Q1: A \_\_\_\_ should be a derived attribute.

a. person’s name b. person’s age c. person’s social security number d. person’s phone number

Ch4Q2: In the ERD, cardinality is indicated using the \_\_\_\_ notation.

a. (max, min) b. (min, max) c. [min ... max] c. {min|max}

Ch4Q3: Another word for existence-independent is \_\_\_\_.

a. weak b. alone c. unary d. strong

Ch4Q4: When the PK of one entity does not contain the PK of a related entity, the relationship is \_\_\_\_.

a. missing b. weak c. strong d. neutral

Ch4Q5: A \_\_\_\_ entity has a primary key that is partially or totally derived from the parent entity in the relationship.

a. strong b. weak c. existence-independent d. relationship

Ch4Q6: The term “\_\_\_\_” is used to label any condition in which one or more optional relationships exist.

a. participation b. optionality c. cardinality d. connectivity

Ch4Q7: The existence of a(n) \_\_\_\_ relationship indicates that the minimum cardinality is at least 1 for the mandatory entity.

a. mandatory b. optional c. multivalued d. single-valued

Ch4Q8: The Crow’s foot symbol with two parallel lines indicates \_\_\_\_ cardinality.

a. (0,N) b. (1,N) c. (1,1) d. (0,1)

Ch4Q9: If an employee within an EMPLOYEE entity has a relationship with itself, that relationship is known as a \_\_\_\_ relationship.

a. self b. self-referring c. looping d. recursive

Ch4Q10: A(n) \_\_\_\_ entity is composed of the primary keys of each of the entities to be connected.

a. associative b. recursive c. unary d. binary