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| |  |  | | --- | --- | | Part 1 of 5 - Part 1 | 25.0/ 25.0 Points |  |  |  | | --- | --- | | Question 1 of 40  2.5/ 2.5 Points  The primary key is selected from the:   |  | | --- | |  |   A. candidate keys.      B. composite keys.      C. determinants.      D. foreign keys. | | Question 2 of 40  2.5/ 2.5 Points  Which of the following is a group of one or more attributes that uniquely identifies a row?   |  | | --- | |  |   A. Tuple      B. Key      C. Relation      D. Determinant | | Question 3 of 40  2.5/ 2.5 Points  Which of the following is expressed by an E-R diagram?   |  | | --- | |  |   A. Relation between process and relationship      B. Relation between processes      C. Relation between entity and process      D. Relation between entities | | Question 4 of 40  2.5/ 2.5 Points  Which of the following appropriately describes a schema in a relational database management system?   |  | | --- | |  |   A. It is the general term for various conditions and constraints that are used to maintain the database in absolutely perfect condition.      B. It is a set of data definitions such as the data properties, format, relationship with other data, etc.      C. It is the general term for database operations such as data insertion, updating, deletion, search, etc.      D. It is not an actual table but a virtual table from the perspective of the user. | | Question 5 of 40  2.5/ 2.5 Points  Table is synonymous with the term:   |  | | --- | |  |   A. record.      B. field.      C. relation.      D. column. | | Question 6 of 40  2.5/ 2.5 Points  Which of the following appropriately describes a domain (defined area), a term used for relational databases?   |  | | --- | |  |   A. It is a set of values that attributes can hold.      B. It is a relationship derived by applying the relational operations to the basic relationship.      C. It is a specification for copying the real world to a database.      D. It is the general term for data insertion, updating, deletion, and search in a database | | Question 7 of 40  2.5/ 2.5 Points  In the ERD diagram, the one-to-many relationship, "a company has multiple employees," is expressed as below picture. Which of the following statements correctly explains the above diagram?   |  | | --- | |  |   A. One company has multiple shareholders.      B. There are multiple companies, and each company has multiple shareholders.      C. There are multiple companies, and each company has a shareholder.      D. One company has one shareholder. | | Question 8 of 40  2.5/ 2.5 Points  In a one-to-many relationship, the entity that is on the one side of the relationship is called a(n) \_\_\_\_\_\_\_ entity.   |  | | --- | |  |   A. instance      B. subtype      C. child      D. parent | | Question 9 of 40  2.5/ 2.5 Points  If the condition given below applies, which of the following is appropriate as an E-R diagram showing the departments employees belong to?   |  | | --- | |  |   A.        B.        C.        D. | | Question 10 of 40  2.5/ 2.5 Points  Row is synonymous with the term:   |  | | --- | |  |   A. relation.      B. record.      C. field.      D. column. | |
| |  |  | | --- | --- | | Part 2 of 5 - Part 2 | 12.5/ 12.5 Points |  |  |  | | --- | --- | | Question 11 of 40  2.5/ 2.5 Points  Which of the following is not a restriction for a table to be a relation?   |  | | --- | |  |   A. No two rows in a table may be identical.      B. The columns must be ordered.      C. All of the entries in any column must be of the same kind.      D. The cells of the table must contain a single value | | Question 12 of 40  2.5/ 2.5 Points  The entity-relationship diagrams A and B shows the relationships between three entities in a school: teacher, class, and classroom. Which of the following is an appropriate interpretation concerning the diagrams? Here, " 1 1 " shows a one-to-one relationship while " 1 \* " shows a one-to-many relationship.   |  | | --- | |  |   A. In A, one class is always assigned to the same classroom. In B, one class may be assigned to one or more classrooms.      B. In A, one class is always supervised by one teacher. In B, one class may be supervised by one or more teachers.      C. In A, a teacher is responsible for one class only. In B, a teacher may be responsible for one or more classes.      D. In A, when a teacher or a classroom is decided, a single class will be decided. In B, if a teacher and a classroom are decided, a single class will be decided. | | Question 13 of 40  2.5/ 2.5 Points  A relation is considered a:   |  | | --- | |  |   A. one-dimensional table.      B. three-dimensional table.      C. ) two-dimensional table.      D. Column | | Question 14 of 40  2.5/ 2.5 Points  Which of the following is the appropriate characteristic of a database?   |  | | --- | |  |   A. Because a database is created to suit the format of the data, it cannot respond flexibly to data format changes      B. It can be accessed by multiple users at the same time due to an exclusive control function.      C. It is difficult to share data between operations due to an exclusive control function.      D. The procedure for making backups is complicated. | | Question 15 of 40  2.5/ 2.5 Points  You are building a new database for a company with 10 departments. Each department contains multiple employees. In addition, each employee might work for several departments. How should you logically model the relationship between the department entity and the employee entity?   |  | | --- | |  |   A. Create an optional one-to-many relationship between department and employee.      B. Create a new entry, create a one-to-many relationship from the employee to the new entry, and create a one-to-many relationship from the department entry to the new entry.      C. Create a mandatory one-to-many relationship between department and employee.      D. Create a new entry, create a one-to-many relationship from the new entry to the employee entry, and then create a one-to-many relationship from the entry to the department entry. | |
| |  |  | | --- | --- | | Part 3 of 5 - Part 2 | 22.5/ 25.0 Points |  |  |  | | --- | --- | | Question 16 of 40  2.5/ 2.5 Points  SQL query and modification commands make up a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .   |  | | --- | |  |   A. HTML      B. DDL      C. DML      D. XML | | Question 17 of 40  2.5/ 2.5 Points  The SQL command to create a table is:   |  | | --- | |  |   A. ALTER TABLE.      B. DEFINE TABLE.      C. MAKE TABLE.      D. CREATE TABLE. | | Question 18 of 40  2.5/ 2.5 Points  What is an SQL virtual table that is constructed from other tables?   |  | | --- | |  |   A. Just another table      B. A view      C. A relation      D. Query results | | Question 19 of 40  2.5/ 2.5 Points  The DROP TABLE statement:   |  | | --- | |  |   A. works whether or not referential integrity constraints would be violated.      B. deletes the table structure along with the table data.      C. is not an SQL statement.      D. deletes the table structure only. | | Question 20 of 40  0.0/ 2.5 Points  SQL can be used to:   |  | | --- | |  |   A. create database structures only.      B. query database data only.      C. modify database data only.      D. All of the above can be done by SQL. | | Question 21 of 40  2.5/ 2.5 Points  The SQL statement that queries or reads data from a table is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .   |  | | --- | |  |   A. SELECT      B. READ      C. QUERY      D. None of the above is correct. | | Question 22 of 40  2.5/ 2.5 Points  In an SQL SELECT statement querying a single table, according to the SQL-92 standard the asterisk (\*) means that:   |  | | --- | |  |   A. all columns of the table are to be returned      B. all records meeting the full criteria are to be returned.      C. all records with even partial criteria met are to be returned.      D. None of the above is correct. | | Question 23 of 40  2.5/ 2.5 Points  To define what columns should be displayed in an SQL SELECT statement:   |  | | --- | |  |   A. use SELECT to name the source table(s) and list the columns to be shown after USING.      B. use FROM to name the source table(s) and list the columns to be shown after SELECT.      C. use USING to name the source table(s) and list the columns to be shown after WHERE.      D. use USING to name the source table(s) and list the columns to be shown after SELECT. | | Question 24 of 40  2.5/ 2.5 Points  The SQL WHERE clause:   |  | | --- | |  |   A. limits the column data that are returned.      B. limits the row data are returned.      C. Both A and B are correct.      D. Neither A nor B are correct. | | Question 25 of 40  2.5/ 2.5 Points  The SQL keyword BETWEEN is used:   |  | | --- | |  |   A. for ranges.      B. to limit the columns displayed.      C. as a wildcard.      D. None of the above is correct. | |
| |  |  | | --- | --- | | Part 4 of 5 - Part 4 | 22.5/ 25.0 Points |  |  |  | | --- | --- | | Question 26 of 40  2.5/ 2.5 Points  Which is the SQL constraint that allows inputting NULL in a specified column in a DBMS table but that does not allow inputting the already entered value?   |  | | --- | |  |   A. REFERENCES      B. UNIQUE      C. CHECK      D. PRIMARY KEY | | Question 27 of 40  2.5/ 2.5 Points  A reason for using SQL view to hide column is:   |  | | --- | |  |   A. to simplify a result only      B. to prevent the display of sensitive data only      C. to accomplish both of the above      D. none of the above are reasons for using an SQL view | | Question 28 of 40  2.5/ 2.5 Points  Given below data in the Leased\_Apartment\_Table table  If the following statement is executed, which data group is extracted? SELECT Property FROM Leased\_Apartment\_Table WHERE (District=’Tu Liem’ OR Time\_From\_The\_Station<15) AND (Floor\_Space>60)   |  | | --- | |  |   A. B,D,E      B. A,C      C. A      D. A,C,D,E | | Question 29 of 40  2.5/ 2.5 Points  SQL views can be used to hide:   |  | | --- | |  |   A. columns and rows only.      B. complicated SQL syntax only.      C. both of the above can be hidden by an SQL view.      D. None of the above is correct. | | Question 30 of 40  2.5/ 2.5 Points  There is a student score table shown below with basic and advanced subject codes which begin with letters B and A respectively. Which of the following SQL statements can be used to retrieve students, from the score table, whose basic subject score is 70 or more and examination date is 2007-05-04?   |  | | --- | |  |   A. SELECT \* FROM score\_table WHERE score >=70 AND examination\_date = ‘2007-05-04’ AND subject\_code LIKE ‘B\_ \_’      B. SELECT student\_number FROM score\_table WHERE score >=70 AND examination\_date = ‘2007-05-04’      C. SELECT \* FROM score\_table WHERE score >=70 AND examination\_date = ‘2007-05-04’      D. SELECT student\_number FROM score\_table WHERE score >=70 AND examination\_date = ‘2007-05-04’ AND subject\_code LIKE ‘B%’ | | Question 31 of 40  2.5/ 2.5 Points  Which of the following is an appropriate explanation concerning functions of keywords in SQL?   |  | | --- | |  |   A. “INDEX” is a special way to join two or more tables.      B. “HAVING” specifies a search condition for an aggregate or a group.      C. “LIKE” is used along with JOIN clause.      D. “VALUES” is used to sort the data in ascending or descending order. | | Question 32 of 40  2.5/ 2.5 Points  Which of the following two descriptions on the operation of the stated customer\_table is wrong?  Operation 1: SELECT CUSTOMER\_NAME, ADDRESS FROM CUSTOMER Operation 2: SELECT \* FROM CUSTOMER WHERE CUSTOMER\_NO = ‘D0010’   |  | | --- | |  |   A. The table extracted by operation 2 has two columns      B. The table extracted by operation 1 has four rows      C. The table extracted by operation 1 has two columns      D. Operation 1 is PROJECTION and operation 2 is SELECTION | | Question 33 of 40  2.5/ 2.5 Points  Which of the following are the five built-in functions provided by SQL?   |  | | --- | |  |   A. SUM, AVG, MULT, DIV, MIN      B. COUNT, SUM, AVG, MAX, MIN      C. SUM, AVG, MIN, MAX, NAME      D. SUM, AVG, MIN, MAX, MULT | | Question 34 of 40  2.5/ 2.5 Points  To update an SQL view, the DBMS must be able to associate the column(s) to be updated with:   |  | | --- | |  |   A. a particular column in a particular underlying table.      B. a particular column in a particular row.      C. a particular row in a particular underlying table.      D. None of the above is correct. | | Question 35 of 40  0.0/ 2.5 Points  Which of the following is NOT a type of SQL constraint?   |  | | --- | |  |   A. ALTERNATE KEY      B. UNIQUE      C. FOREIGN KEY      D. PRIMARY KEY | |
| |  |  | | --- | --- | | Part 5 of 5 - Part 5 | 12.5/ 12.5 Points |  |  |  | | --- | --- | | Question 36 of 40  2.5/ 2.5 Points  A UNION query is which of the following?   |  | | --- | |  |   A. Combines the output from multiple queries and does not include the same number of columns.      B. Combines the output from no more than two queries and does not include the same number of columns.      C. Combines the output from multiple queries and must include the same number of columns.      D. Combines the output from no more than two queries and must include the same number of columns. | | Question 37 of 40  2.5/ 2.5 Points  The most frequently used relational operation, which merges data from two or more related tables into one resultant table, is called an cross-join.   |  | | --- | |  |  |  |  |  | | --- | --- | --- | | |  | | --- | | True | | False | | | | Question 38 of 40  2.5/ 2.5 Points  Which of the following is the appropriate characteristic of a database?   |  | | --- | |  |   A. It can be accessed by multiple users at the same time due to an exclusive control function      B. It is difficult to share data between operations due to an exclusive control function.      C. Because a database is created to suit the format of the data, it cannot respond flexibly to data format changes      D. The procedure for making backups is complicated. | | Question 39 of 40  2.5/ 2.5 Points  A CASE SQL statement is which of the following?   |  | | --- | |  |   A. A way to establish an IF-THEN-ELSE in SQL.      B. A way to establish a loop in SQL.      C. A way to establish a data definition in SQL.      D. All of the above. | | Question 40 of 40  2.5/ 2.5 Points  Which is the SQL statement that creates an updatable view? In this question, all the tables in the SQL statements are updatable.   |  | | --- | |  |   A. CREATE VIEW Expensive\_Product(Product\_No, Product\_Name) AS SELECT Product\_No, Product\_Name FROM Product WHERE Product\_Unit\_Price>1000      B. CREATE VIEW Product\_Order(Product\_No, Order\_Quantity) AS SELECT Product\_No, SUM(Order\_Quantity) FROM Order GROUP BY Product\_No      C. CREATE VIEW Ordered\_Product(Product\_No) AS SELECT DISTINCT Product\_No FROM Order      D. CREATE VIEW Order\_List(Order\_No, Product\_Name, Order\_Quantity) AS SELECT Order\_No, Product\_Name, Order\_Quantity FROM Order, Product WHERE Order.Product\_No=Product.Product\_No | |