Quiz 1 - Intro/Relational Algebra

Due Jan 19 at 8am **Points** 20 **Questions** 15 **Time Limit** None

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	66 minutes	20 out of 20

⚠ Correct answers are hidden.

Score for this quiz: **20** out of 20
Submitted Jan 15 at 1:57pm
This attempt took 66 minutes.

Question 1 — 1 / 1 pts

The programming language that manipulates the structure and definition of the databse

- (•) Data Definition Language (DDL)
- ( ) Data Manipulation Language (DML)
- ( ) Database Origin Structure (DOS)
- ( ) Database Structure Language (DSL)

Question 2 — 1 / 1 pts

In three-level architecture this layer represents the community view of the database, describing what data is stored in teh database and teh relationships among the data

- ( ) Internal Layer
- (•) Conceptual Layer
- ( ) External Layer
- ( ) Matrix Layer

Question 3 — 1 / 1 pts

In a Three-Level architecture, this level contains the "real world" representation of the data that is familiar to the end-user

- (•) External Layer
- ( ) Conceptual Layer
- ( ) Matrix Layer
- ( ) Internal Layer

Question 4 1 / 1 pts

The acronym DBMS stands for

- Mobile Army Surgical Unit
- DataBase Mobility Structure
- Data Bytes Monitoring System
- DataBase Management System

Question 5 1 / 1 pts

Which of the following is part of the DBMS?

- DDL Compiler
- All of these
- Query Processor
- DML Preprocessor

Question 6 1 / 1 pts

A shared collection of logically related data and the description of this data, designed to meet the information needs of an organization

- network files
- database
- information continuum
- index roster

Question 7 1 / 1 pts

In three-layer architecture this layer describes how the data is stored in teh database and represents the database on a computer

- Internal Layer
- Conceptual Layer
- External Layer
- Matrix Layer

Question 8 1 / 1 pts

In a database when a value in a field is neither known or unknown this is stored in its place

- none
- 0
- null
- <blank>

Question 9 1 / 1 pts

A predecessor of DBMS was the file-based system which was a collection of programs that performed a service for end-users. Each program managed and defined its own data. Which of the following is NOT considered a problem with file based systems

- cross program communication
- data redundancy
- program-data dependence
- ease of normalization

Question 10 1 / 1 pts

A value in a table that refers to more information in another table is known as this:

- Foreign Key
- Pointer
- Reference Key
- Primary Key

Question 11 2 / 2 pts

In order to be "union-compatible" two sets must have the following attributes

- mapped columns that hold the same values so the two sets can be matched
- The same number of columns in both sets with compatible data types in each column
- the same numbers of columns in each set, data type doesn't matter
- Differing number of columns in both sets, as long as there are columns with the same name

Question 12 2 / 2 pts

$R \triangleright \triangleleft_F S$

The above relational algebra equation represents

- Cartesean Product
- Aggregate Function
- Outer Join
- (•) Theta join

Question 13 2 / 2 pts

$R \sqsupset \triangleleft S$

A join in which tuples from R that do not have matching values in the common attributes of S are also included in the result relation.

- Theta Join
- Cross Join
- Equijoin
- (•) (Left) Outer Join

Question 14 2 / 2 pts

Describe the relation that would be produced by the following relational algebra:

$\Pi_{hotelName}\ (Hotel\ \triangleright \triangleleft_{Hotel.hotelNo = Room.hotelNo}\ (\sigma_{price > 50}\ (Room)))$

- This will produce a join of Hotel and those tuples of Room with a price greater than £50. Essentially this will produce a relation containing all hotel names with a room price below 50.
- A relation listing the name of hotels that have more than 50 rooms
- (•) This will produce a join of Hotel and those tuples of Room with a price greater than £50. Essentially this will produce a relation containing all hotel names with a room price above 50.
- A join between Hotel and Room listing all the room numbers of a given hotel where there are prices greater than 50

Question 15 2 / 2 pts

In Relational Algebra, this operation filters rows of a relation

- (•) Selection
- Union
- Projections

Cartesean Product

Quiz Score: **20** out of 20