

Question 1

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Flag question

The relation R(ABCD) has following FDs:
{ A -> B ; B -> A ; A -> D ; D -> B }

☐ a. R is not in 3NF

☐ b. R is not in 2NF

☐ c. None of the others

☒ d. R is in 3NF

Clear my choice

Question 2

Answer saved

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The relation R(ABCD) has following FDs:
(ACD -> B ;
AC -> D ;
D -> C ;
AC -> B)

Choose the correct statement about R:

☐ a. None of the others

☐ b. R is in 1NF only, not higher

☐ c. R is in 2NF only, not higher

☐ d. R is in 3NF only, not higher

Clear my choice

Question 3

Answer saved

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Flag question

The relational operator that adds all possible pairs of rows from two tables is known as the operator.

☐ a. selection

☒ b. product

☐ c. union

☐ d. join

Clear my choice

Question 4

Answer saved

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Today, the two important data models are:

☐ a. The flat file data model and the semi-structured data model (including XML and related standards)

☐ b. The semi-structured data model (including XML and related standards) and the network data model

☒ c. The relational data model (including object-relational extensions) and the semi-structured data model (including XML and related standards)

☐ d. The network data model and the flat file data model

Clear my choice

Question 5

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Flag question

Which of following feature is NOT responsibility of Database Management System

☐ a. Allow users to create new databases and specify their schemas

☒ b. Manage user accounts of computer on which DBMS is running

☐ c. Support the storage of very large amounts of data

☐ d. Give users the ability to query the data

Clear my choice

Question 6

Answer saved

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Which of following is never used as data model?

☐ a. Tree-based model

☐ b. Graph-based model

☐ c. Hierarchical model

☐ d. Relational database model

☒ e. None of the others

Clear my choice

Question 7

Answer saved

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Flag question

_____ is responsible for defining the content, the structure, the constraints, and functions or transactions against the database

☐ a. Database administrator

☐ b. All of the others

☒ c. Database designer

☐ d. Database enduser

Clear my choice

Question 8

Answer saved

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Which of the followings are the characteristics of transactions?

☐ a. Serialization

☒ b. Atomicity

☐ c. Concurrency

☐ d. Commission

☒ e. Isolation

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Finish attempt ...

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question

Schema-altering commands are known as _____ commands

- ☐ a. Data Controlling Language
 - ☐ b. Data Manipulation Language
 - ☐ c. None of the others
 - ☒ d. Data Definition Language
- [Clear my choice](#)

Question 10
Answer saved
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question

Suppose that we try to connect to hcm-cms.fpt.edu.vn using Internet Explorer. In this case, we are _____

- ☐ a. Database user
 - ☐ b. Database administrator
 - ☐ c. None of the others
 - ☒ d. Database designer
- [Clear my choice](#)

Question 11
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question

Which of the following statement is belong to DML?

- ☐ a. ALTER
 - ☐ b. CREATE
 - ☒ c. INSERT
 - ☐ d. GRANT
- [Clear my choice](#)

Question 12
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question

Which of the followings is not available in relational data model?

- ☐ a. Data manipulation language
 - ☐ b. Data definition language
 - ☐ c. None of the others
 - ☒ d. Entity Relationship
- [Clear my choice](#)

Question 13
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question

In the architecture of a database management system, the query compiler translates the query into an internal form called a _____

- ☐ a. metadata
 - ☐ b. textual form
 - ☒ c. query plan
 - ☐ d. SQL statement form
- [Clear my choice](#)

Question 14
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Which of the followings is correct about database?

- ☐ a. Database is a collection of data that is managed by a DBMS
 - ☒ b. All of the others
 - ☐ c. Database is a collection of information that exists over a long period of time
 - ☐ d. Database is created and maintained by DMBS
- [Clear my choice](#)

Question 15
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question

Data model is a notation for describing data or information. The description consists of _____

- ☒ a. Structure of the data
- ☐ b. Privilege on the data
- ☒ c. Constraints on the data
- ☐ d. Users on the data
- ☒ e. Operations on the data

Question 16
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question

Which of the following is a language to access and manipulate data from a database, even non-programmers can use it to retrieve and update data ?

- ☒ a. Structured Query Language
 - ☐ b. JDBC
 - ☐ c. All of the others
 - ☐ d. ODBC
- [Clear my choice](#)

Question 17
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Suppose relation R1 has n1 attributes and t1 tuples, relation R2 has n2 attributes and t2 tuples, then the Cartesian Product $R3 = R1 \times R2$ has _____

- ☐ a. $n1+n2$ attributes, and $t1+t2$ tuples
 - ☐ b. $n1*n2$ attributes, and $t1*t2$ tuples
 - ☒ c. $n1+n2$ attributes, and $t1*t2$ tuples
 - ☐ d. $n1*n2$ attributes, and $t1+t2$ tuples
- [Clear my choice](#)

Question 18
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question

When performing union, intersection, or difference operations on relations R and S, they must be type compatible. That is, _____

- ☐ a. The domain of corresponding attributes of R and S must be compatible
 - ☒ b. R and S must have the same number of attributes and the domain of corresponding attributes of R and S must be compatible
 - ☐ c. R and S must have the same number of attributes
 - ☐ d. The names of attributes of R and S must be the same
- [Clear my choice](#)

Question 19

Given relation R(A,B) that has 2 tuples (1, 2) and (3, 4); relation S(B, C, D) has 3 tuples (2, 5, 6), (4, 7, 8) and (9, 10, 11). The natural join of R and S has _____

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- ☐ a. 2 tuples (1, 2, 2, 5) and (3, 4, 4, 7)
- ☒ b. 1 tuple (1, 2, 10, 11)
- ☐ c. 2 tuples (1, 2, 3, 4) and (5, 6, 7, 8)
- ☒ d. 2 tuples (1, 2, 5, 6) and (3, 4, 7, 8)

Clear my choice

Question 20

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question

When we define an attribute A as PRIMARY KEY of relation R, then _____

- ☐ a. No more primary key on the relation R
- ☒ b. All of the others
- ☐ c. There are no two tuples that have the same values on the A component
- ☐ d. Tuple must be not null on the A component

Clear my choice

Question 21

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question

Which of the following expression represents the below constraint on relation R(A:int,B:int,C:int):

For every tuple in R, the value on A must be greater than the value on B or value on C must be less than the sum of value on A and value on B

- ☐ a. $\sigma_{A \leq B \text{ OR } C \geq A+B}(R) = 'O'$
- ☒ b. $\sigma_{A > B \text{ OR } C < A+B}(R) = 'O'$
- ☐ c. $\sigma_{A > B \text{ AND } C < A+B}(R) = 'O'$
- ☐ d. $\sigma_{A \leq B \text{ AND } C \geq A+B}(R) = 'O'$

Clear my choice

Question 22

Answer saved
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question

The relational operator that yields all possible pairs of rows from two tables is known as a ...

- ☐ a. Join
- ☐ b. Union
- ☐ c. Selection
- ☒ d. Product

Clear my choice

Question 23

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question

Suppose two relations R1(A,B), R2(C,D) and the theta join $R3 := R1 \bowtie_{B < C} R2$. Which of the followings is correct?

- ☐ a. None of the others
- ☒ b. Each tuple t1 of R1 connect with all those tuple t2 of R2 if $t1.B < t2.C$
- ☐ c. Each tuple t1 of R1 connect with one tuple t2 of R2 if $t1.B < t2.C$
- ☐ d. Each tuple t1 of R1 connect with some those tuple t2 of R2 if $t1.B < t2.C$

Clear my choice

Question 24

Answer saved
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question

Why do we choose relational data model?

- ☐ a. Because it is used in object oriented programming
- ☐ b. Because of its important role in software engineering
- ☒ c. None of the others
- ☐ d. Because it is the most modern data model in market

Clear my choice

Question 25

Answer saved
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question

Given a relation R(A,B,C,D) with functional dependencies $A \rightarrow B$, $C \rightarrow D$. Find one key of R.

- ☐ a. {B,C}
- ☐ b. {A}
- ☐ c. {B,C,D}
- ☐ d. {A,B,C}
- ☒ e. {A,C}

Clear my choice

Question 26

Answer saved
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question

Given a relation R(A,B,C,D) with functional dependencies $A \rightarrow B$, $C \rightarrow D$, $D \rightarrow B$. Compute $\{C\}^+$

- ☐ a. {A,B,C}
- ☒ b. {B,C,D}
- ☐ c. {A,C}
- ☐ d. {A,B,C,D}

Clear my choice

Question 27

Answer saved
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question

Given a relation R(A,B,C,D,E) with functional dependencies $A \rightarrow B$, $C \rightarrow D$, $D \rightarrow E$, $E \rightarrow A$. Compute $\{C\}^+$

- ☐ a. {C,D,E,A}
- ☐ b. {C,D}
- ☒ c. {C,D,E,A,B}
- ☐ d. {C,D,E}

Clear my choice

Question 28

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question

Which of the following is considered anomaly?

- ☐ a. if a set of values becomes empty, we may lose other information as a side effect
- ☐ b. information may be repeated unnecessarily in several tuples
- ☐ c. information may be changed in one tuple, but may not be changed in other tuple(s)
- ☒ d. All of the others

Clear my choice

Question **29**
Answer saved
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question

An A attribute is called the key of relation R if _____

- ☐ a. Its closure includes all attributes of relation R
- ☐ b. There are no two tuples that have the same values on the A component
- ☐ c. It functionally determines all the other attributes of relation R
- ☒ d. All of the others

[Clear my choice](#)

Question **30**
Answer saved
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question

Consider a relation with schema $R(A, B, C, D)$ and FD's $A \rightarrow B, A \rightarrow C, C \rightarrow D$. Which of the following is the $\{A\}^+$?

- ☐ a. $\{A, B\}$
- ☐ b. $\{A\}$
- ☒ c. $\{A, B, C, D\}$
- ☐ d. $\{A, B, C\}$

[Clear my choice](#)

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PREVIOUS ACTIVITY
Quiz 1

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