

DBMS Chapter 10

Functional Dependencies and Normalization for Relational Databases

Multiple Choice Questions :

1 If every functional dependency in set E is also in the closure of F then this is classified as

- A. FD is covered by E
- B. E is covered by F
- C. F is covered by E
- D. Fplus is covered by E

2 If there is more than one key for relation schema in DBMS then each key in relation schema is classified as

- A. prime key
- B. super key
- C. candidate key
- D. primary key

3. The form of dependency in which the set of attributes that are neither a subset of any of the keys nor the candidate key is classified as

- A. transitive dependency
- B. full functional dependency
- C. partial dependency
- D. prime functional dependency

4 The property of normalization of relations which guarantees that functional dependencies are represented in separate relations after decomposition is classified as

- A. nonadditive join property
- B. independency reservation property
- C. dependency preservation property
- D. additive join property

5 The rule which states that addition of same attributes to the right side and left side will results in other valid dependency is classified as

- A. referential rule

- B. inferential rule
- C. augmentation rule
- D. reflexive rule

6 The process of analyzing relation schemas to achieve minimal redundancy and insertion or update anomalies is classified as

- A. normalization of data
- B. denomination of data
- C. isolation of data
- D. de-normalization of data

7 If the attribute of relation schema R is member of some candidate key then this type of attributes are classified as

- A. atomic attribute
- B. candidate attribute
- C. nonprime attribute
- D. prime attribute

8. If the attribute of relation schema R is not a member of some candidate key then this type of attribute is classified as

- A. nonprime attribute
- B. prime attribute
- C. atomic attribute
- D. candidate attribute

9 If each tuple have relation R within it then this type of relation is classified as

- A. primary relation
- B. prime relation
- C. nested relation
- D. atomic relation

10 In the functional dependency between two sets of attributes A and B then the set of attributes A of database is classified as

- A. top right side
- B. down left side
- C. left hand side
- D. right hand side

11 Considering the functional dependency, the one in which removal of some attributes does not affect dependency is called

- A. full functional dependency
- B. partial dependency
- C. prime functional dependency
- D. transitive dependency

12 The constraint between two different attributes sets is classified as

- A. modification anomaly
- B. functional dependency
- C. insertion anomaly
- D. deletion anomaly

13 The normalization form which is based on the transitive dependency is classified as

- A. first normal form
- B. second normal form
- C. fourth normal form
- D. third normal form

14 The concept in normalization of relations which is based on the full functional dependency is classified as

- A. fourth normal form
- B. third normal form
- C. first normal form
- D. second normal form

15 The rule which states that set of attributes determines any of its subset is classified as

- A. closure rule
- B. reflexive rule
- C. referential rule
- D. inferential rule

16 In the tuples, the interpretation of the values of the attribute is considered as

- A. commands of relation

- B. clauses of relation
- C. schemas of relation
- D. semantics of relation

Descriptive Type Questions :

Which are the Four informal Measures of quality for relation Schema Design?

How to Handle Redundant Information and Anomalies in tuples?

In detail explain Functional Dependency with an Example

Explain Inference Rules of Functional Dependencies

What is a Super Key and an Attribute? Explain with an example

In Detail Explain First Normal Form

In detail Explain Second Normal Form

Briefly Summarize all the Three Normal Forms

Explain Boyce-Codd Normal Form in Detail

Write Armstrong's Intereference Rules in their Basic Form

Answers:

B

C

A

C

C

A

D

A

C

C

B

B

D

D

B

D