

4.A property which ensures that each functional dependency is represented in some individual relation resulting after decomposition.

lossless join

lossy join

Dependency preservation

All of the above

5.Consider a relation R(A,B,C,D,E) with the given three functional dependencies. $AB \rightarrow C$; $BC \rightarrow D$; $C \rightarrow E$; Identify the candidate key(s).

{A}

{BC}

{AB, BC}

{AB}

6.If every non key attribute functionally dependent on the primary key, then the relation will be in:

1NF

2NF

3NF

4NF

7.Given a relation R(A, B, C, D) and Functional Dependency set

$FD = \{ AB \rightarrow CD, B \rightarrow C \}$, The relation is in:

1NF

2NF

3NF

BCNF

8.A functional dependency between two or more non key attributes.

Transitive Dependency

Partial Dependency

Functional Dependency

Full Dependency

9.Consider a relation (A, B, C, D) with the given three functional dependencies. $A \rightarrow B$; $B \rightarrow C$; $C \rightarrow D$; $D \rightarrow A$. The prime attributes are:

{A}

{A,B}

{A,B,C}

{A,B,C,D}

10.In the following, a separate schema is created consisting of that attribute and the primary key of the entity set.

A multivalued attribute of an entity set

A many-to-many relationship set

A one-to-many relationship set

None of the mentioned

11.An association between two attributes of the same table is known as:

MVD

JD

FD

closure of the attribute

12.The process of Normalization is:

IRREVERSIBLE

REVERSIBLE

ITERATIVE

RECURSIVE

13. The relation EMPDT1 is defined with attributes empcode(unique), name, street, city, state, and pin code. For any pin code, there is only one city and state. Also, for any given city and state, there is just one pin code. In normalization terms EMPDT1 is a relation in

1 NF only

2 NF and hence also in 1 NF

3NF and hence also in 2NF and 1NF=

BCNF and hence also in 3NF, 2NF and 1NF

Question 1:- When you normalize a relation by breaking it into two smaller relations, what must you do to maintain data integrity?

Please select all the correct answers.

A. Link the relations by a common field

B. Remove any functional dependencies from both relations

C. Assign both relations the same primary key field(s)

D. Create a primary key(s) for the new relation

Question 2:- A relation is in 1NF if it doesn't contain any _____?

A. Determinants

B. Repeating groups

C. Null values in primary key fields

D. Functional dependencies

Question 3: A functional dependency that exist between two non-key attributes is called _____

(a) Non-transitive dependency

(b) Transitive dependency

(c) Partial transitive dependency

(d) None of the above

Question 4:- In the _____ normal form, a composite attribute is converted to individual attributes.

a) First

b) Second

c) Third

d) Fourth