DBMS TEST

1)

Tuples can be uniquely identified by an attribute or set of attributes known as a ___ key.

A. Primary
B. Foreign
C. Candidate
D. Composite

2)

WHICH CAN CONTAIN DUPLICATE VALUE?

A) PRIMARY KEY
B) SUPER KEY
C) CANDIDATE KEY
D) ALTERNATE KEY

3)

If attribute A determines both attributes B and C, then it is also true that:

A. $A \rightarrow B$.

B. $B \rightarrow A$.

C. $C \rightarrow A$.

D. $(B,C) \rightarrow A$.

4)

One solution to the multivalued dependency constraint problem is to:

A. Split the relation into two relations, each with a single theme.

B. Change the theme.

C. Create a new theme.

D. Add a composite key.

5)

A function that has no partial functional dependencies is in _____ form :

A. 3NF

B. 2NF

C. 4NF

D. BCNF

6)

For some relations, changing the data can have undesirable consequences called:

A. Referential integrity constraints

B. Modification anomalies

C. Normal forms

D. Transitive dependencies

7)

3. Functional dependencies are classified as ___ on the left.

A. Dependent

B. Determined

C. Determinants

D. Database

8)

. A -> B is a ___l, when A intersection B is NULL.

A. Complete Trivial
B. Complete Non-Trivial
C. Incomplete Trivial
D. Incomplete Non-Trivial

9)

. When a relation is in 2NF and there is ___, it is in 3NF.

A. Transition Dependency
B. No Transition Dependency
C. Relational Dependency
D. No Relational Dependency

10)

. If a relation has a 4NF and no join dependency, and when it joins, it should be__, it is considered 5NF.

A. Lossful
B. Lesser
C. Lossless
D. Full

11)

. Which functional dependency types is/are not present in the following dependencies?

Empno -> EName, Salary, Deptno, DName

DeptNo -> DName

EmpNo -> DName

A. Full functional dependency

B. Partial functional dependency

C. Transitive functional dependency

D. Both B and C

12)

If one attribute is the determinant of the second, which in turn is the determinant of the third, then the relation cannot be:

A. Well-structured

B. 1NF

C. 2NF

D. 3NF

13)

Q.1 Which functional dependency holds in given relation R (A, B, C) and why?

1. AB → C && C → B
2. BC → A && B → C
3. BC → A && A → C
4. AC → B && B → C

A	B	C
7	1	8
7	2	5
7	3	5
5	8	8

14)

Q.2 Which functional dependency holds in given relation and why?

1. v → w x
2. y z → x
3. x → y z

v	w	x	y	z
7	8	c	9	4
8	7	c	9	4
7	8	c	2	4
7	8	c	2	2

15) 2 questions

Assume a relation R(A, B, C, D) with set of functional dependencies F = { C → D, C → A, B → C}. Use this setup to answer the following questions;

1. Which of the following is the candidate keys of R?

a) C

b) BC

c) B

d) Both (b) and (c)

2. Which is the normal form that the relation R is currently complies with?

a) First Normal Form (1NF)

b) Second Normal Form (2NF)

c) Third Normal Form (3NF)

d) All of the above