



# ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution



## WORKSHEET – 32

### Topic : FDs and Anomalies

Subject: COMPUTER SCIENCE

Class - 12

F.M:15

Chapter: Relational Model and Normalization

Date: 27/07/2020

### Choose the correct answer for each question:

**15x1=15**

1.  $A \rightarrow B$  has trivial functional dependency if:
  - a) B is a subset of A
  - b) B is a superset of A
  - c)  $B \cap A = \text{Empty set}$
  - d) All of these
2.  $B \rightarrow B$  has a:
  - a) non-trivial dependency
  - b) trivial dependency
  - c) both (a) and (b)
  - d) none of these
3.  $A \rightarrow B$  has a non-trivial functional dependency if :
  - a) B is not a subset of A
  - b)  $B \cap A = \text{Empty set}$
  - c) both (a) and (b)
  - d) None of these
4. First normal form disallows:
  - a) multi-valued attribute
  - b) composite attribute
  - c) either (a) or (b)
  - d) All of the mentioned
5. An attribute is \_\_\_\_\_ on another attribute, if it is Functionally Dependent on that attribute and not on any of its proper subset.
  - a) Full FD
  - b) Partial FD
  - c) transitive FD
  - d) none of the above
6. The functional dependency is a relationship that exists between two \_\_\_\_\_.
  - a) tuples
  - b) attributes
  - c) relations
  - d) All of the mentioned

7. If  $P \rightarrow Q$  and  $Q \rightarrow R$  is true, then  $P \rightarrow R$  is a:
- a) Full FD
  - b) partial FD
  - c) transitive dependency
  - d) All of the mentioned
8. A \_\_\_\_\_ is the unintended loss of data due to deletion of other data.
- a) delete anomaly
  - b) update anomaly
  - c) insert anomaly
  - d) none of these
9. Functional Dependencies are the types of constraints that are based on \_\_\_\_\_
- a) Key
  - b) Key revisited
  - c) Superset key
  - d) None of the mentioned
10. Functional dependencies are a generalization of :
- a) Relation dependencies
  - b) Key dependencies
  - c) Database dependencies
  - d) None of the mentioned
11. The database design prevents some data being stored due to \_\_\_\_\_.
- a) deletion anomalies
  - b) updation anomalies
  - c) insertion anomalies
  - d) select anomalies
12. A/an \_\_\_\_\_ is a data inconsistency that results from data redundancy and a partial update.
- a) delete anomaly
  - b) update anomaly
  - c) insert anomaly
  - d) none of these
13. In the \_\_\_\_\_ normal form, a composite attribute is converted to individual attributes.
- a) First
  - b) Second
  - c) Third
  - d) Fourth

14.

Empdt1(empcode, name, street, city, state, pincode).

For any pincode, there is only one city and state. Also, for given street, city and state, there is just one pincode. In normalization terms, empdt1 is a relation in

- a) 1 NF only
- b) 2 NF and hence also in 1 NF
- c) 3NF and hence also in 2NF and 1NF
- d) None of these

15.

Emp\_Id → Emp\_Name

Choose the correct option:

- a) Emp\_Id is the determinant
- b) Emp\_Name is the determinant
- c) Emp\_Id is the dependent
- d) None of these

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