



# ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian Minority Institution



## WORKSHEET – 32 (Answer Key)

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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