

## **ST. LAWRENCE HIGH SCHOOL**



15x1=15

A Jesuit Christian Minority Institution

## WORKSHEET – 29 (ANSWER KEY)

**Topic : Relational Algebra** Subject: COMPUTER SCIENCE Class - 12 F.M:15 Chapter: Database Management System Date: 13/07/2020 Choose the correct answer for each question: 1. Which of the following is used to denote the selection operation in relational algebra? a) Pi (Greek) b) Sigma (Greek) c) Lambda (Greek) d) Omega (Greek) 2. If T1 and T2 are two relations, then which of the following is not a valid relational algebra expression? a) T1 U T2 b) T1 ∩ T2 c) T1 - T2 d) None of these 3. Which of the following is used to denote the projection operation in relational algebra? a) Pi (Greek) b) Sigma (Greek) c) Lambda (Greek) d) Omega (Greek) 4. Which of the following is not valid unary operation in the relational algebra? a) select b) <u>min</u> c) rename d) project 5. If E1 and E2 are relational algebra expressions, then which of the following is NOT a relational algebra expression? a) E1 U E2 b) **E1 / E2** c) E1 - E2

- d) E1× E2
- 6. The operation of a relation X, produces Y, such that Y contains only selected attributes of X. Such an operation is :
  - a) **Projection**
  - b) Intersection
  - c) Union
  - d) Difference

- 7. Which of the following is not valid binary operation in the relational algebra?
  - a) union
  - b) <u>select</u>
  - c) set-difference
  - d) Cartesian product
- 8. Which of the following is a fundamental operation in relational algebra?
  - a) Set intersection
  - b) Natural join
  - c) Assignment
  - d) None of the mentioned
- 9. The intersect operation:
  - a) Automatically eliminates duplicates
  - b) Automatically eliminates duplicates, if we provide all clause with intersect
  - c) Never eliminates duplicates
  - d) None of these
- 10. Relational Algebra is a \_\_\_\_\_\_ query language that takes two relations as input and produces another relation as an output of the query.
  - a) Relational
  - b) Structural
  - c) <u>Procedural</u>
  - d) Fundamental
- 11. In relational algebra, the select, project, and rename operations are:
  - a) Dimensional operations
  - b) Multi-dimensional operations
  - c) Binary operations
  - d) Unary operations
- 12. The assignment operator is denoted by
  - a) ->
  - <u>b) <-</u>
  - c) =
  - d) ==
- 13. Which of the following is used to denote the rename operation in relational algebra? a) Pi (Greek)
  - b) Sigma (Greek)
  - c) Lambda (Greek)
  - d) <u>rho (Greek)</u>
- 14. For select operation the \_\_\_\_\_\_ appear in the subscript and the \_\_\_\_\_\_ argument appears in the paranthesis after the sigma.
  - a) <u>Predicates, relation</u>
  - b) Relation, Predicates
  - c) Operation, Predicates
  - d) Relation, Operation

15. The \_\_\_\_\_\_ operation, denoted by "-", allows us to find tuples that are in one relation

but are not in another.

a) union

- b) <u>set-difference</u>
- c) intersection
- d) none of these

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