1. 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) Procedural  
   d) Fundamental

Answer: c  
Explanation: This language has fundamental and other operations which are used on relations.

1. Which of the following is a fundamental operation in relational algebra?  
   a) Set intersection  
   b) Natural join  
   c) Assignment  
   d) None of the mentioned

Answer: d  
Explanation: The fundamental operations are select, project, union, set difference, Cartesian product, and rename.

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)

Answer: b  
Explanation: The select operation selects tuples that satisfy a given predicate.

1. For select operation the \_\_\_\_\_\_\_\_ appear in the subscript and the \_\_\_\_\_\_\_\_\_\_\_ argument appears in the paranthesis after the sigma.  
   a) Predicates, relation  
   b) Relation, Predicates  
   c) Operation, Predicates  
   d) Relation, Operation

Answer: a

1. The \_\_\_\_\_\_\_\_\_\_\_ operation, denoted by −, allows us to find tuples that are in one relation but are not in another.  
   a) Union  
   b) Set-difference  
   c) Difference  
   d) Intersection

Answer: b  
Explanation: The expression r − s produces a relation containing those tuples in r but not in s.

1. Which is a unary operation:  
   a) Selection operation  
   b) Primitive operation  
   c) Projection operation  
   d) Generalized selection

Answer: d  
Explanation: Generalization Selection takes only one argument for operation.

1. Which is a join condition contains an equality operator:  
   a) Equijoins  
   b) Cartesian  
   c) Natural  
   d) Left

Answer: a

1. In precedence of set operators, the expression is evaluated from  
   a) Left to left  
   b) Left to right  
   c) Right to left  
   d) From user specification

Answer: b  
Explanation: The expression is evaluated from left to right according to the precedence.

1. Which of the following is not outer join?  
   a) Left outer join  
   b) Right outer join  
   c) Full outer join  
   d) All of the mentioned

Answer: d  
Explanation: The FULL OUTER JOIN keyword combines the result of both LEFT and RIGHT joins.

1. The assignment operator is denoted by  
   a) ->  
   b) <-  
   c) =  
   d) ==

Answer: b  
Explanation: The result of the expression to the right of the ← is assigned to the relation variable on the left of the ←.