AMCAT Relational Algebra and SQL Questions

**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)

**Answer**: Option B

**Explanation**: The selected operation selects tuples that satisfy a given predicate.

**Question 2**: For select operation the ______ appear in the subscript and the __________ argument appears in the parenthesis after the sigma.
A. Predicates, relation
B. Relation, Predicates
C. Operation, Predicates
D. Relation, Operation

**Answer**: Option A

**Question 3**: The minimal set of a super key is?
A. candidate key
B. primary key
C. foreign key
D. secondary key

**Answer**: Option A

**Question 4**: 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**: Option D

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

**Question 5**: The term ______ is used to refer to a row.
A. Attribute
B. Tuple
C. Field
D. Instance

**Answer**: Option B

**Question 6**: A relational database consists of a collection of
A. Tables
B. Fields
C. Records
D. Keys
Answer: Option A

**Question 7:** A ________ in a table represents a relationship among a set of values.
A. Column
B. Key
C. Row
D. Entry
Answer: Option C

**Question 8:** Which of the following can be rolled back?
A. Truncate
B. Delete
C. Drop
D. None
Answer: Option B

**Question 9:** Which of the following is not a DML statement?
A. Select
B. Insert
C. Create
D. Delete
Answer: Option C

**Question 10:** If in JOIN operation, conditions of JOIN operation are not satisfied then results of operation is
A. Zero tuples and empty relation
B. zero tuples from two relation
C. one tuple from one relation saying null
D. two tuples from empty relations
Answer: Option A

**Question 11:** Which of the following is not a unary operator?
A. where
B. select
C. rename
D. min
Answer: Option D