

## Tutorial II

### Fill in the blanks. (20 Marks)

No.	Questions	Answers
1	A relational calculus is based on the branch of mathematical logic called _____.	predicate calculus
2	The relational calculus is considered to be a _____ language.	nonprocedural
3	In tuple relational calculus, variables range over _____.	tuples
4	In _____ relational calculus, variables range over the domains (values) of attributes.	domain
5	Relational calculus has two quantifiers called universal quantifier and _____ quantifier.	existential
6	The standard language for interacting with relational databases is _____.	structured query language (SQL)
7	SQL includes a data definition language (DDL) component and a _____ component.	data manipulation language (DML)
8	SQL supports the _____ data types.	scalar
9	SQL tables are allowed to include _____ rows.	duplicate
10	SQL tables are considered to have a _____ column ordering.	left-to-right

No.	Questions	Answers
11	Base tables are defined by means of the _____ statement.	CREATE TABLE
12	The basic structure of an SQL query consists of three clauses: SELECT, FROM, and _____.	WHERE
13	_____ is a constraint between two sets of attributes from the database.	Functional dependency
14	The left-hand side of an FD is called the _____ and the right-hand side is called the dependent.	determinant
15	The FD is _____ if and only if the right-hand side is a subset of the left-hand side.	trivial
16	_____ can be considered as a filtering or purification process to make the design have successively better quality.	Normalization
17	_____ decomposition also guarantees that no information is lost in the process.	Nonloss
18	A domain is _____ if elements of the domain are considered to be indivisible units.	atomic
19	_____ dependency occurs when the two attributes in a table are independent of each other but both depend on a third attribute.	Multivalued
20	The _____ model includes analogs of all of the semantic objects: entity, property, relationship, subtype.	entity/relationship

\*\*\*\*\* END \*\*\*\*\*