

Tutorial I

Fill in the blanks. (20 Marks)

No.	Questions	Answers
1	_____ is a software to store, process and retrieve data for one or more users.	DBMS
2	Database system includes four major components, namely data, hardware, software and _____.	users
3	Data is one of the important factors of database and there are two types of data: user data and _____.	metadata
4	In ANSI/SPARC architecture, it is divided into three levels: _____ level, internal level and conceptual level.	external
5	In _____ level, it defines all database entities, their attributes, and their relationships.	conceptual
6	Conceptual level describes the actual data stored in the database in the form of tables and relates them by means of _____.	mapping
7	Client and server can run on separate machines thus providing _____.	distributed processing
8	In relational system, _____ operation extracts specified columns from a table.	project
9	The relational model represents the database as a collection of _____.	relations
10	In the formal relational model terminology, a row is called a _____, a column header is called an attribute, and the table is called a relation.	tuple

No.	Questions	Answers
11	The candidate key used to identify tuples in the relation is called _____.	primary key
12	Primary key value cannot be _____.	NULL
13	A _____ is a language in which a user request information from the database.	query language
14	The relational model is divided into three parts: data structure (or objects), _____, and data manipulation (or operators).	data integrity
15	Domain provides a set of _____ values, from which various attributes in various relations draw their actual values.	scalar
16	The relational model does include two general integrity features: candidate (and primary) keys and _____ keys.	foreign
17	A _____ value indicates an absent value that may exist but be unknown or that may not exist at all.	null
18	For certain of relational operations, the two operands are required to be _____.	type-compatible
19	The _____ operation performs the analogous function for vertical or column-wise computations.	summarize
20	Special relational operations in relational algebra are _____, project, join and divide.	restrict

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