

University of Mumbai
Examinations Summer 2022

Time: 2hour 30 minutes

Max. Marks: 80

Subject (Paper Code) : / Database Management System

Program No. & Name of the Examination:

1T00725 / T.E.(Computer Engineering)(SEM-V)(Choice Base Credit Grading System)(R2016)

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Schema Definition is written by _____.
Option A:	Database Manager
Option B:	Database Administrator
Option C:	Application Developer
Option D:	Storage Manager
2.	If a schedule S can be transformed into a schedule S' by a series of swaps of non-conflicting instructions, then S and S' are
Option A:	Non conflict equivalent
Option B:	Conflict equivalent
Option C:	Equal
Option D:	Isolation equivalent
3.	An application where only one user accesses the database at a given time is an example of a _____.
Option A:	single-user database application
Option B:	multiuser database application
Option C:	e-commerce database application
Option D:	data mining database application
4.	The Purpose of foreign key is _____
Option A:	Sharing of the data among the relations
Option B:	Distribution of data
Option C:	Joining data
Option D:	Display data easily
5.	Which of the following is not a method in deadlock handling
Option A:	Deadlock prevention
Option B:	Deadlock detection
Option C:	Deadlock distribution
Option D:	Deadlock recovery
6.	An _____ is a set of entities of the same type that share the same properties, or attributes.
Option A:	Entity set
Option B:	Attribute set
Option C:	Relation set
Option D:	Entity model
7.	W-timestamp(Q) denotes?

Option A:	The largest timestamp of any transaction that can execute write(Q) successfully
Option B:	The smallest timestamp of any transaction that can execute write(Q) successfully
Option C:	The largest timestamp of any transaction that can execute read(Q) successfully
Option D:	The smallest timestamp of any transaction that can execute read(Q) successfully
8.	A functional dependency is a relationship between or among
Option A:	Entities
Option B:	Rows
Option C:	Attributes
Option D:	Tables
9.	Check the following query: Select doc_name from doctor Where salary <= 100000 and salary >= 90000; This query can be replaced by which of the following?
Option A:	select doc_name from doctor where salary between 90000 and 100000;
Option B:	select doc_name from doctor where salary <= 90000 and salary >= 100000;
Option C:	select doc_name from doctor where salary between 100000 and 90000;
Option D:	select doc_name from doctor where salary >= 90000 and salary <= 100000;
10.	Aggregate function is the function that
Option A:	takes a list of values and return a single value as result
Option B:	takes a list of values and return a list of values as result
Option C:	takes a single value and returns a list of values as result
Option D:	takes a single value and returns a single value as result

Q2	Solve any Two out of Three (10 marks each)
A	Explain types of users of database system with suitable example and responsibilities of DBA.
B	Explain types of join with suitable example.
C	Define deadlock. Explain deadlock handling.

Q3	Solve any Two out of Three (10 marks each)
A	Explain DDL and DML commands with suitable example.
B	Explain concept of serializability with its types.
C	Explain specialization and generalization with example.

Q4	Write short notes (Any two out of three) 10 marks each
A	Relational algebra operators
B	SQL constraints
C	Timestamp based protocol