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AS-433**M.Sc. (Computer Sc.) II Semester (New)****Examination July 2019****ADVANCED RDBMS****Paper - MCSC-203***Time Allowed : Three Hours]**[Maximum Marks : 85***Note : Attempt all questions.****Section - A****Objective Type Questions** $10 \times 1.5 = 15$ **Q.1. Choose the correct options:**

- i) Which of the following are steps in query processing?
- (a) Parsing and Translation
 - (b) Optimization
 - (c) Evaluation
 - (d) All of the mentioned

- ii) A property of entire relation, rather than of individual tuples, is known as
- (a) Attribute
 - (b) Constant
 - (c) Variable
 - (d) Key
- iii) Which is the correct syntax to retrieve all rows from the table?
- (a) select * from table_name;
 - (b) select from table_name;
 - (c) select column_name from table__name; <http://www.onlinebu.com>
 - (d) None of these
- iv) Which command is used to remove all rows from a table?
- (a) Delete
 - (b) Remove
 - (c) Truncate
 - (d) Both (a) and (b)

(3)

- v) _____ constraint can only applied at column level.
- (a) Not Null
 - (b) Check
 - (c) Unique
 - (d) Primary Key
- vi) Deadlocks can be prevented using
- (a) Preemption and transaction rollbacks
 - (b) Wait and die scheme
 - (c) Wound-wait scheme
 - (d) All of the mentioned
- vii) Which of the following operations need the participating relations to be union compatible?
- (a) Union
 - (b) Intersection
 - (c) Difference
 - (d) All of the Above.

(4)

- viii) Transaction processing is associated with everything below except.
- (a) Producing detail, summary, or exception reports.
 - (b) Recording a business activity
 - (c) Confirming an action or triggering a response.
 - (d) Maintaining data
- ix) Which of the following is a comparison operator in SQL?
- (a) =
 - (b) Like
 - (c) Between
 - (d) All of the above
- x) A lock that allows concurrent transactions to access different rows of the same table is called:
- (a) Field level lock
 - (b) Row level lock
 - (c) Table level lock
 - (d) Database level lock

(5)

Section - B
Short Answer Type Questions

5 × 5 = 25

Q.2. Write about role and responsibilities of a DBA.

OR

How do you maintain Data-Security in a Databases?

Q.3. How does the two phase locking protocol ensures serializability?

OR

Explain the purpose of the checkpoint mechanism.
How often should checkpoints be performed?

Q.4. Write advantages and disadvantages of distributed database systems.

OR

Explain parallel database architecture in brief

Q.5. What are the benefits of PL/SQL packages?

OR

Differentiate between % ROWTYPE and TYPE RECORD with example.

(6)

Q.6. How can we handle errors in PL/SQL? Write with example.

OR

What is the difference between Function, Procedure and Package in PL/SQL?

Section - C

Long Answer Type Questions

5 × 9 = 45

Q.7. Briefly explain the various steps for Data Base Life Cycle.

OR

Why concurrency control is needed in DBMS?
Write about concurrency control techniques on DBMS.

Q.8. What is the purpose of ACID properties? Explain each property in detail.

OR

Write about GRANT and REVOKE SQL commands with privileges and roles specified in their syntax also give some example of both SQL commands.

(7)

- Q.9. Discuss SPSD, MPSD and MPMD levels for data and process distribution with suitable block diagrams.

OR

Describe in detail about Two-Tier and Three-Tier Client-Server architectures.

- Q.10. Write a PL/SQL Program for Prime Number using suitable loop statement.

OR

Give a complete example of using select for update cursors in oracle PL/SQL.

- Q.11. What is a trigger? How to create it? Discuss various types of triggers with syntax.

OR

What is a stored procedure? Why do we need them? How they are differ from functions and trigger?

