

N.B. (1) All questions are **compulsory**.

(2) Figures to the right indicate marks.

(3) Answers to the same question must be written together.

(4) Mixing of sub-questions is not allowed.

**1. Attempt All (Each of 5 Marks)**

15.

**(A) Multiple choice questions**

1) Which of the following condition is true to create an index in your own schema?

- A. The table or cluster to be indexed is in another schema.
- B. You don't have INDEX privilege on the table to be indexed.
- C. You have CREATE ANY INDEX system privilege.
- D. None of the above.

2) PL/SQL is a procedural language that has the following advantages -----

- A. PL/SQL reducing network traffic.
- B. PL/SQL supports SQL data manipulation.
- C. Application written in PL/SQL is fully portable.
- D. All of the above.

3) A transaction that it completes its execution successfully is said to be.....

- A. Rollback.
- B. Committed
- C. Aborted
- D. Failed

4) We use .....name PL/SQL program objects and units.

- A. Identifiers.
- B. Literals
- C. Delimiters
- D. Lexical Units

5) In Aries algorithm log records contain

- A. Old Value.
- B. New value
- C. Both A and B
- D. Error value

**(B). Fill in the Blanks (GOTO, concurrency control, after, drop index, rollback)**

1. -----trigger is executes the trigger action after the triggering statement is executed.
2. The----- statement changes the flow of control within PL/SQL block.
3. To drop an index we use-----statement.
4. The technique employed by the Oracle engine to protect table data when people are accessing it is called-----
5. In case of any shut down during transaction before commit ----- statement is done automatically.

**(C). Answer in 1 –2 sentences**

1. What is a procedure?
2. What is the use of Exit statement?
3. Define rollback statement.
4. State down types of file organization.
5. When does deadlock happen?

**2. Attempt any three of the following (Attempt Any Three):**

15

- a) Explain the benefits of Stored Procedure.
- b) What do you mean by trigger? How trigger enforcing data integrity?
- c) Write a note on cluster index.
- d) Create a trigger to insert the name of the student in UPPERCASE in the table student (rno, name).
- e) What is mean by file organization? Explain heap file organization.
- f) How to alter and drop a sequence?

**3. Attempt the following (Any Three):**

15

- a) Explain in brief the benefits of PL/SQL.
- b) What are the data types supported by PL/SQL?
- c) Write a CASE statement with suitable example.
- d) Explain GOTO and NULL statement with an example.
- e) Write a PL/SQL block to calculate area of circle till radius greater than 10. Insert the radius and area in an empty table name aoc(radius, area).
- f) Explain IF-THEN-ELSE statement in with example.

**4. Attempt the following (Any Three):**

15

- a) Explain Two Phase Commit Protocol.
- b) Describe ACID Properties for transaction.
- c) Explain Write-ahead log protocol.
- d) Write a note on Conflict Serializability.
- e) Explain deadlock prevention scheme.
- f) Write a note on Redo phase.

**5. Attempt the following (Any Three):**

15

- a) Explain hash base index.
- b) Write a note on for loop statement.
- c) What is concurrent execution? Explain advantages of it.
- d) Explain the use of % type and % type row attribute in Oracle with suitable example.
- e) How to create and execute stored procedure?

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