

(2½ Hours)

[Total Marks: 75]

N.B.: 1) All questions are compulsory.

2) Figures to the right indicate marks.

3) Illustrations, in-depth answers and diagrams will be appreciated.

4) Mixing of sub-questions is not allowed.

1. Attempt All (Each of 5 Marks) :

(15)

(a) Multiple Choice Questions

1) The difference between rollback and commit is --.

A. commit saves transaction, rollback undoes it

B. commit undoes the transaction, and rollback saves it

C. commit loads transaction and rollback saves it

D. none of the above

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

--.

A. Integration with database

B. Better performance

C. Support for Transaction Processing

D. All of the mentioned above

3) SQL statements that must end transaction are of type --.

A. 2 types

B. 3 types

C. 4 types

D. 5 types

4) Term that is known to commit current transaction, is --.

A. Rollback work

B. Commit work

C. Trace work

D. Transit work

5) A term that consists of a sequence of query and/or update statements, is known as .

A. Transactions

B. Data commit

C. Data rollback

D. Data automation

(b) Fill in the blanks (currval, drop index, Binary large object, rowid, ||)

1. In sequence, the recent value is seen by -----

2. Data type BLOB stands for

3. To drop an index we use _____ statement.

4. Compound symbols... are use in dbms_output.put_line as a separator.

5. In Sequence the current value is seen by

(c) Answer in 1 – 2 sentences

1. How to declare a function?
2. Give an example where : old and :new are used.
3. What is the use of EXIT statement?
4. Define views.
5. Define Primary index.

2. Attempt the following (Any THREE)
(15)

(a) Generate the trigger to generate the primary key values for product_id in the products (prod_id, pname, p_price) table and display the values in the table.

(b) How to create an index? Explain with an example.

(c) Employees of the testing department in the Perpetual Systems does testing of the software and result is taken as test-id, test-name, date_of_testing, test_result. Execute the procedure to insert the values in the table “test_specifications”.

(d) Explain heap file organization.

(e) How to create and execute stored procedure?

(f) Write a short note on using DDL statements in trigger by giving an example

3. Attempt the following (Any THREE)
(15)

(a) Write a PL/SQL block that will accept an account number from the user, check if the users balance is less than minimum balance, then deduct Rs. 1000/- from the balance.

Refer the table accts(acctno, current_balance, updt_balance)

(b) Explain declaration and assignment in PL/SQL along with explanation of Begin block.

(c) Explain PL/SQL data types.

(d) Explain case statement with an example.

(e) Write a PL/SQL block that calculate the area of circle for a value of radius varying from 3 to 7. Store the radius and the corresponding values of calculated area in an empty table name areas (radius, area).

(f) Explain GOTO and NULL statement with an example.

4. Attempt the following (Any THREE)
(15)

(a) Define and explain ACID.

(b) Explain two phase commit protocol.

(c) What is lock? Explain it along with its types.

(d) Differentiate between serial schedule and serializable schedule with example.

(e) Explain shadow paging and log based recovery scheme.

(f) Describe Aries Algorithm.

5. Attempt the following (Any THREE)
(15)

(a) Create table simple interest (p_amt, no_of_yr, rate_int, simp_int) calculate simple interest and update table using for loop for 3 values.

(b) Explain the concept of transaction.

(c) Describe Features of PL/SQL.

(d) Explain cluster file organization.

(e) Define indexes? Explain with an example creating and dropping of indexes.

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