

- (b) Fill in the blanks (exit, drop view, nextval , %type, completed, exit when)
- 1) In Sequence, the next value is seen by -----
 - 2) A transaction that completes its execution successfully, it is said to be -----
 - 3) To drop a view we use ----- statement
 - 4) To map the columns of the table with the memory variables declared in PL/SQL block ----- is used.
 - 5) To terminate the loop end loop statement ----- statement is used

(c) Answer in 1 – 2 sentences

1. Write a syntax to declare procedure.
2. Give an example where : **old** is used.
3. State the SQL statements used to lock the table in an exclusive manner.
4. How to declare and assign the variables in PL/SQL?
5. Write any 2 advantages of PL/SQL over SQL.

Q. 2 Attempt the following (Any THREE)

(15)

- (a) Generate the trigger to generate the primary key values for order_id in the orders (ord_id, ord_date) table and display the values in the table.
- (b) Explain the hashed file organization.
- (c) What is sequence? How to create, alter and drop a sequence?
- (d) 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”.
- (e) Define index. Write the commands for creating, altering and dropping an index.
- (f) Write a short note on using DML statements used in trigger using before/after clause by giving an example.

Q. 3 Attempt the following (Any THREE)

(15)

- (a) Explain the role of Null values in PL/SQL block.
- (b) Write a pl/sql block to store the details of flat in flat_details(flat type, no_of_rooms). Accept the no_of_rooms from the table. If the no_of_rooms > 5 then store flat_type as BIG, if no_of_rooms > 3 and less than 5 then store flat_type as SPACIOUS. If no_of_rooms >1 and less than or equal to 2 then flat type is STUDIO. Store the flat type by Case structure
- (c) Write on the role of exit when statement in loop ... end loop with an example

- (d) State how to write, call and execute the function from a PL/SQL block along with an example.
- (e) Write a PL/SQL block to calculate the simple interest when the values of Principal amount, rate and duration is accepted from the user.
- (f) Write down how Case structure in PL/SQL is different from if...else statement.

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

- (a) What is ACID? What does each property say with respect to the execution of transaction?
- (b) What is lock? Explain locking commands in context with SQL along with its types.
- (c) Define log. What are the contents of log record?
- (d) Explain two phase commit protocol.
- (e) Describe Aries Algorithm
- (f) Write a short note on Write Ahead Log Protocol.

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

- (a) Write a short note on PL/SQL Data Types.
- (b) Write a PL/SQL to satisfy following conditions, refer employee_tbl (emp_id, emp_name, emp_salary, job).
 - 1) If job is clerk then increase the salary by Rs. 2000.
 - 2) If job is manager then increase the salary by Rs. 10000.

Otherwise, if job is other than above two categories, then block should show an error message 'No change in salary'.

- (c) Write the commands for the following –
Refer a table products (prodid, pname, quantity, price, type).
 - 1. Insert 2 records into the same table.
 - 2. Save the contents.
 - 3. Delete the record which is recently inserted.
 - 4. Rollback the transaction.
 - 5. Save the changes done till this point by the name as T1.
- (d) Explain Time Stamp Based Protocol.
- (e) What is the meaning of the error “exact fetch returns more than one row” which occurs when executing PL/SQL block?