

- Note: i) All questions are compulsory.
 ii) Figures to the right indicate full marks.
 iii) Give query example wherever necessary.

Q.1 Attempt any Two.**[10]**

- Briefly explain Sequence. What is the use of nextval and currval attribute in sequence?
- Write a short note on-
 - Uniqueness Constraint
 - Check Constraint
- Explain all Single-Row Functions used in oracle.
- Consider following tables-

Book(bookid,author,publisher,category,price)

Distributor(distid,bookid,dname,city)

Orders(orderno,bookid,distid,qty)

Solve following queries –

- Find out the book ordered in minimum quantity.
- Find out the total number of books in each category.
- Create a view to display the details of book whose order is placed having the author 'Henry Korth' and publisher 'TMG'.
- Find out the book whose price is less than the average price of all books. (Solve with subquery)
- Display the distributors city wise.

Q.2 Attempt any Two.**[10]**

- Write short note on SQL Factoring clause.
- Write a short note on hierarchical retrieval.
- Write a short note on-
 - UNION clause
 - INTERSECT clause
 - MINUS clause
- Explain all date-time functions used in oracle.

Q.3 Attempt any Two.**[10]**

- How PL/SQL blocks are nested? Illustrate with example.
- Explain all scalar data types available in PL/SQL.
- What do you mean by anonymous PL/SQL block? Explain with example.
- Consider a table Room(room_id, room_type, capacity, location). Write a PL/SQL block to display the details room whose room id is entered by the user.

Q.4 Attempt any Two.**[10]**

- Explain FOR UPDATE and WHERE CURRENT clause of cursors.
- What do you mean by parameterized cursor? How to declare it and use it?

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- c) What is a cursor? What are the attributes used in Implicit cursor?
 - d) Consider a table Parts(pno,pname,color). Write PL/SQL block which will display all "Red" color parts.

Q.5 Attempt any Two.

[10]

- a) Explain the ways to call a function in PL/SQL.
- b) What do you mean by package? What are the advantages of using package?
- c) How to create, call and remove a stored procedure?
- d) Consider table Persons(Person_id,name,city). Create a function which will return total number of persons from the table.

Q.6 Attempt any Two.

[10]

- a) Compare database trigger and a stored procedure.
- b) Explain following steps to execute dynamic SQL with DBMS_SQL package-
 - i) Parse SQL statement
 - ii) Bind columns to cursor columns
 - iii) Execute query to fetch data from tables into cursor columns.
- c) What do you mean by Trigger? Explain the syntax of creating trigger with all keywords and parameters.
- d) Write short note on instead of trigger.

Q.7 Attempt any Three.

[15]

- a) How to change the structure of created table? Explain with example.
- b) How to grant and revoke the privileges from the user?
- c) What are identifiers? Explain with its types.
- d) What do you mean by an exception? Explain oracle named exception handlers.
- e) What do you mean by function? What are the different keywords and parameters used for creating database function?
- f) List out the steps in order to execute dynamic SQL with DBMS_SQL package.