

**FINALTERM EXAMINATION**  
Fall 2022  
CS409 – Introduction to Database Administration

MUBEEN MUSTAFA  
Whatsapp +92 3411677117

**Question No: 1 (Marks: 01) - Please choose the correct option**

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Which SQL statement from the following is used to create a new tablespace?

- A. **CREATE TABLESPACE**
- B. CREATE TEMPORARY TABLESPACE
- C. CREATE UNDO TABLESPACE
- D. Both A & B

**Question No: 2 (Marks: 01) - Please choose the correct option**

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Views are \_\_\_\_ tables that don't exist physically in Oracle.

- A. Real
- B. **Virtual**
- C. Both A and B
- D. None of the above

**Question No: 3 (Marks: 01) - Please choose the correct option**

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One or more tables are joined to create a \_\_\_\_.

- A. **View**
- B. Virtue
- C. Variable
- D. None

**Question No: 4 (Marks: 01) - Please choose the correct option**

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Which of the following date function can be used to get the timestamp from database?

- A. SYSTEMTIMESTAMP
- B. **SYSTIMESTAMP**
- C. SYSTEMDATE
- D. SYSDATE

**Question No: 5 (Marks: 01) - Please choose the correct option**

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\_\_\_\_\_ are PL/SQL programs that are set up to execute in response to a particular event on a table in the database.

- A. Package
- B. Functions
- C. Triggers**
- D. Procedure

**Question No: 6 (Marks: 01) - Please choose the correct option**

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A program that resides inside an oracle database that manipulates data in the database before the data is used outside the database is known as \_\_\_\_\_.

- A. Triggers
- B. Function
- C. Stored procedure**
- D. Package

**Question No: 7 (Marks: 01) - Please choose the correct option**

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Which command is used to fetch records from database?

- A. Fetch
- B. Select**
- C. Use
- D. Get

**Question No: 8 (Marks: 01) - Please choose the correct option**

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A \_\_\_\_\_ is a group of PL/SQL statements that can be called by name.

- A. View
- B. Trigger
- C. Procedure**
- D. Function

**Question No: 9 (Marks: 01) - Please choose the correct option**

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How many CREATE TRIGGER statements are there? ANSWER is 2

- A. 4
- B. 5
- C. 6
- D. 7

**Question No: 10 (Marks: 01) - Please choose the correct option**

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TRUNCATE TABLE statement is used to remove the table.

- A. TRUE
- B. FALSE
- C. Can be true or false
- D. Can not say

**Question No: 11 (Marks: 01) - Please choose the correct option**

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Which processes is an instance made of Oracle?

- A. Memory processes
- B. Oracle background processes
- C. Data processes
- D. All of the above

**Question No: 12 (Marks: 01) - Please choose the correct option**

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Which is the smallest unit of storage in an Oracle database?

- A. Segment
- B. Data Block
- C. Extent
- D. Data File

**Question No: 13 (Marks: 01) - Please choose the correct option**

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How many types of procedure are there?

- A. 1
- B. 2(Standalone and procedure)
- C. 3
- D. 4

**Question No: 14 (Marks: 01) - Please choose the correct option**

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Which of the following is/are the type of procedure?

- A. IN
- B. OUT
- C. IN OUT
- D. All of the above

**Question No: 15 (Marks: 01) - Please choose the correct option**

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The value of \_\_\_\_ is passed to the subprogram as a default parameter.

- A. IN
- B. OUT
- C. IN OUT
- D. None

**Question No: 16 (Marks: 01) - Please choose the correct option**

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What is the syntax to Drop Procedure?

- A. DELETE PROCEDURE procedure\_name;
- B. DROP PROCEDURE procedure\_name;**
- C. RETRIEVE PROCEDURE procedure\_name;
- D. END PROCEDURE procedure\_name;

**Question No: 17 (Marks: 01) - Please choose the correct option**

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Which of the following is not present in the syntax of Create Procedure?

- A. IS
- B. BEGIN
- C. END
- D. None(A,B,C are present)**

**Question No: 18 (Marks: 01) - Please choose the correct option**

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Which of the following is present in Call Procedure?

- A. BEGIN
- B. END
- C. Both A and B**
- D. None of the above

**Question No: 19 (Marks: 01) - Please choose the correct option**

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How many types of exceptions are there?

**A. 2(Pre-defined,user-defined and system-defined exceptions)in pl/sql there are 2 types**

- B. 3
- C. 4
- D. 5

**Question No: 20 (Marks: 01) - Please choose the correct option**

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Errors that are encountered during the execution of the program are referred to as \_\_\_\_ in PL/SQL.

- A. FUNCTION
- B. CURSOR
- C. EXCEPTION**
- D. PROCEDURE

**Question No: 21 (Marks: 01) - Please choose the correct option**

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Which of the following is/are an/the type(s) of exceptions?

- A. System-defined
- B. User-defined
- C. Both A. and B.**
- D. None of the above

**Question No: 22 (Marks: 01) - Please choose the correct option**

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Which command is used in order to raise an exception explicitly?

- A. RISE
- B. ROSE
- C. RAISE**
- D. RINSE

**Question No: 23 (Marks: 01) - Please choose the correct option**

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Oracle creates \_\_\_\_ when SQL statements are processed.

- A. Content Areas
- B. Context Areas**
- C. Context Ids

D. Content Ids

**Question No: 24 (Marks: 01) - Please choose the correct option**

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In the contexts created by Oracle, a cursor represents a \_\_\_\_\_.

- A. Function
- B. Table
- C. Pointer**
- D. None of the above

**Question No: 25 (Marks: 01) - Please choose the correct option**

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An SQL \_\_\_\_\_ refers to a program that retrieves and processes one row at a time, based on the results of the SQL statement.

- A. Cursor**
- B. Function
- C. Procedure
- D. View

**Question No: 26 (Marks: 01) - Please choose the correct option**

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Which of the following would cause an infinite loop to occur in a simple loop

- A. LOOP**
- B. END LOOP
- C. IF – THEN
- D. EXIT

**Question No: 27 (Marks: 01) - Please choose the correct option**

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Which identifier is valid?

- A. Customer\_12**
- B. Loop
- C. customer@orgA
- D. 12customer

**Question No: 28 (Marks: 01) - Please choose the correct option**

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Select the best answer below. What are the components of a package?

- A. Box, wrapping and binding
- B. Specification and content
- C. Header and body**
- D. None of the given

**Question No: 29 (Marks: 01) - Please choose the correct option**

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If you cannot specify a mode for a parameter, what is the default mode?

- A. OUT
- B. IN**
- C. COPY
- D. DEFAULT

**Question No: 30 (Marks: 01) - Please choose the correct option**

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Which of the given files are not copied in cold/offline backup.

- A. Data Files
- B. Control Files
- C. Init.ora and config.ora files
- D. Log files**

**Question No: 31 (Marks: 01) - Please choose the correct option**

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\_\_\_\_\_ is online backup.

- A. Hot**
- B. Physical
- C. Cold
- D. Logical

**Question No: 32 (Marks: 01) - Please choose the correct option**

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A management procedure called \_\_\_ control is required to control the process of concurrently performing operations on a database.

- A. Database
- B. Conspiracy
- C. Concurrency**

D. Relational

**Question No: 33 (Marks: 01) - Please choose the correct option**

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It is called a schedule when it consists of a series of operations from one \_\_\_ to another.

- A. Transition
- B. Transaction
- C. Transportation
- D. Transcription

**Question No: 34 (Marks: 01) - Please choose the correct option**

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In SQL, which of the following is not a data definition language command?

- A. RENAME
- B. REVOKE
- C. GRANT
- D. UPDATE

**Question No: 35 (Marks: 01) - Please choose the correct option**

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The granting and revoking of roles by the user may cause some confusions when that user role is revoked. To overcome the above situation

- A. The privilege must be granted only by roles
- B. The privilege is granted by roles and users
- C. The user role cannot be removed once given
- D. By restricting the user access to the roles

**Question No: 36 (Marks: 01) - Please choose the correct option**

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Which of the following data base objects can generate serial numbers?

- A. Synonyms
- B. Views
- C. Tables
- D. Sequences

**Question No: 37 (Marks: 01) - Please choose the correct option**

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Which of the given is part of logical database?

- A. Control Files

- B. Redo Log Files
- C. Data Files
- D. Segments**

**Question No: 38 (Marks: 01) - Please choose the correct option**

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The size of the database block is decided at the time of \_\_\_\_\_.

- A. Database creation**
- B. Table creation
- C. Workspace creation
- D. Tablespace creation

**Question No: 39 (Marks: 01) - Please choose the correct option**

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Which of the given synonym is used for Char Datatype in PL/SQL?

- A. Character**
- B. Varchar
- C. Varchar2
- D. Ch

**Question No: 40 (Marks: 01) - Please choose the correct option**

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A \_\_\_\_\_ of the transactions can be obtained by finding a linear order consistent with the partial order of the precedence graph.

- A. Direction graph
- B. Precedence graph
- C. Scheduling scheme
- D. Serializability order**

**Question No: 41 (Marks: 03)**

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Write the syntax to create view in PL/SQL.

**Answer**

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```
CREATE [OR REPLACE] VIEW view_name  
AS  
SELECT column1, column2, ...  
FROM table_name  
WHERE [condition];
```

---

**Question No: 42 (Marks: 03)**

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Write the PL/SQL code to create a sequence to generate the primary key of the Employee table incremented by 2.

**Answer**

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```
CREATE SEQUENCE emp_seq  
INCREMENT BY 2  
START WITH 1  
NOCACHE  
NOCYCLE;
```

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**Question No: 43 (Marks: 03)**

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Write the difference between PL/SQL Procedure and PL/SQL Functions.

**Answer**

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**PL/SQL procedures are designed to perform an action or a series of actions, while PL/SQL functions are designed to return a single value.**

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**Question No: 44 (Marks: 03)**

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Write the names of any three scalar data types used in PL/SQL programs.

**Answer**

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**NUMBER: Used to store numeric values, such as integers or decimals.  
VARCHAR2: Used to store character strings with a maximum length of 32767 bytes.  
DATE: Used to store date and time values in a specific format (e.g. 'DD-MON-YYYY HH24:MI:SS').**

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**Question No: 45 (Marks: 03)**

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Write PL/SQL statement to remove the privilege from the user Amir.

**Answer**

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```
REVOKE privilege_name FROM Amir;
```

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**Question No: 46 (Marks: 03)**

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Write a transaction which reads two elements X and Y and perform the following operations and write the results.

X:= X+500  
Y:= Y+1000

**Answer**

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```
DECLARE
  x NUMBER;
  y NUMBER;
BEGIN
  -- Read the values of X and Y
  x := &enter_value_for_x;
  y := &enter_value_for_y;

  -- Perform the required operations
  x := x + 500;
  y := y + 1000;

  -- Display the results
  DBMS_OUTPUT.PUT_LINE('X after the operation: ' || x);
  DBMS_OUTPUT.PUT_LINE('Y after the operation: ' || y);
END;
```

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**Question No: 47 (Marks: 05)**

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Write sample query for creating schema named “Product” for sample user “AE” using following attributes?

1. Table name is “new\_product”
2. View is “new\_product\_view”
3. Grants is “SELECT” object privilege on view to the sample user “HR”

**Answer**

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```
CREATE SCHEMA Product;

CREATE TABLE Product.new_product (
  product_id INT,
  product_name VARCHAR(50),
```

```
product_price DECIMAL(10,2),
product_quantity INT
);
```

```
CREATE VIEW Product.new_product_view AS
SELECT product_name, product_price FROM Product.new_product
WHERE product_quantity > 0;
```

```
GRANT SELECT ON Product.new_product_view TO HR;
```

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**Question No: 48 (Marks: 05)**

Define deadlock in context of oracle and also describe to resolve this deadlock issue.

**Answer**

In Oracle, a deadlock occurs when two or more transactions are blocked indefinitely because each of them is waiting for the other to release a resource. To resolve this, Oracle uses a technique called deadlock detection and resolution, where the system detects the deadlock and identifies one of the transactions as the victim. The victim's transaction is then rolled back, freeing up the resources and allowing the other transaction(s) to continue. Alternatively, application developers can use techniques such as reducing lock times or adjusting transaction isolation levels to prevent or minimize the occurrence of deadlocks.

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**Question No: 49 (Marks: 05)**

Write the SQL Plus statements for following.

1. Recreating control files.
2. Viewing Alert Log using data dictionary
3. To trace files for your current session.

**Answer**

To recreate control files, execute the following SQL Plus statement:  
**ALTER DATABASE BACKUP CONTROLFILE TO TRACE;**  
**CREATE CONTROLFILE REUSE DATABASE <database\_name>**  
**RESETLOGS NOARCHIVELOG;**

To view Alert Log using data dictionary, execute the following SQL Plus statement:  
**SELECT VALUE FROM V\$DIAG\_INFO WHERE NAME = 'Diag Trace';**

Navigate to the path obtained from the above query, and then open the Alert\_<SID>.log file to view the Alert Log.

To trace files for your current session, execute the following SQL Plus statement:

```
ALTER SESSION SET SQL_TRACE = TRUE;
```

This statement enables tracing for the current session. To disable tracing, use the following statement:

```
ALTER SESSION SET SQL_TRACE = FALSE;
```

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**Question No: 50 (Marks: 05)**

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Given are the entities of School management system, you have to create ERD for this. Mention the primary key and cardinalities among all entities.

1. Teacher
2. Class
3. Student

**Answer**

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