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Certification
Program

Oracle Database

Oracle Database Administration I &
Oracle Database Administration II
Certification Overview and Sample Questions

Introduction

Preparing to earn the Oracle Database Administration 2019 Certified Professional certification helps candidates gain the skills and knowledge to install, patch and upgrade Oracle Database and Oracle Grid Infrastructure for a standalone server, create and manage a backup and recovery strategy using Recovery Manager (RMAN), use RMAN for Database duplication and transportation, diagnose failures using RMAN, and manage all aspects of Multitenant container databases, pluggable databases and application containers including creation, cloning, security, transportation and backup and recovery.

The Administration I exam and recommended training focus on fundamental Database Administration topics such as understanding the database architecture, managing database instances, managing users, roles and privileges, and managing storage that lay the foundation for a Database Administrator entry-level job role. Additionally, the Admin I exam assumes knowledge of SQL.

The Administration II exam and associated recommended training presents advanced topics such as multi-tenancy, backup and recovery, deploying, patching, and upgrading.

Certification Details

- **Credential Awarded:** Oracle Database Administration 2019 Certified Professional
- **Exam Numbers:** 1Z0-082 & 1Z0-083
- **Target Audience:** Oracle Database Administrators
- **Platform:** Delivered via Pearson VUE
- **Digital Badge:** Oracle Certified Professional – 2019 Database Administrator

See Exam Details 1Z0-082 ❯   **See Exam Details 1Z0-083** ❯
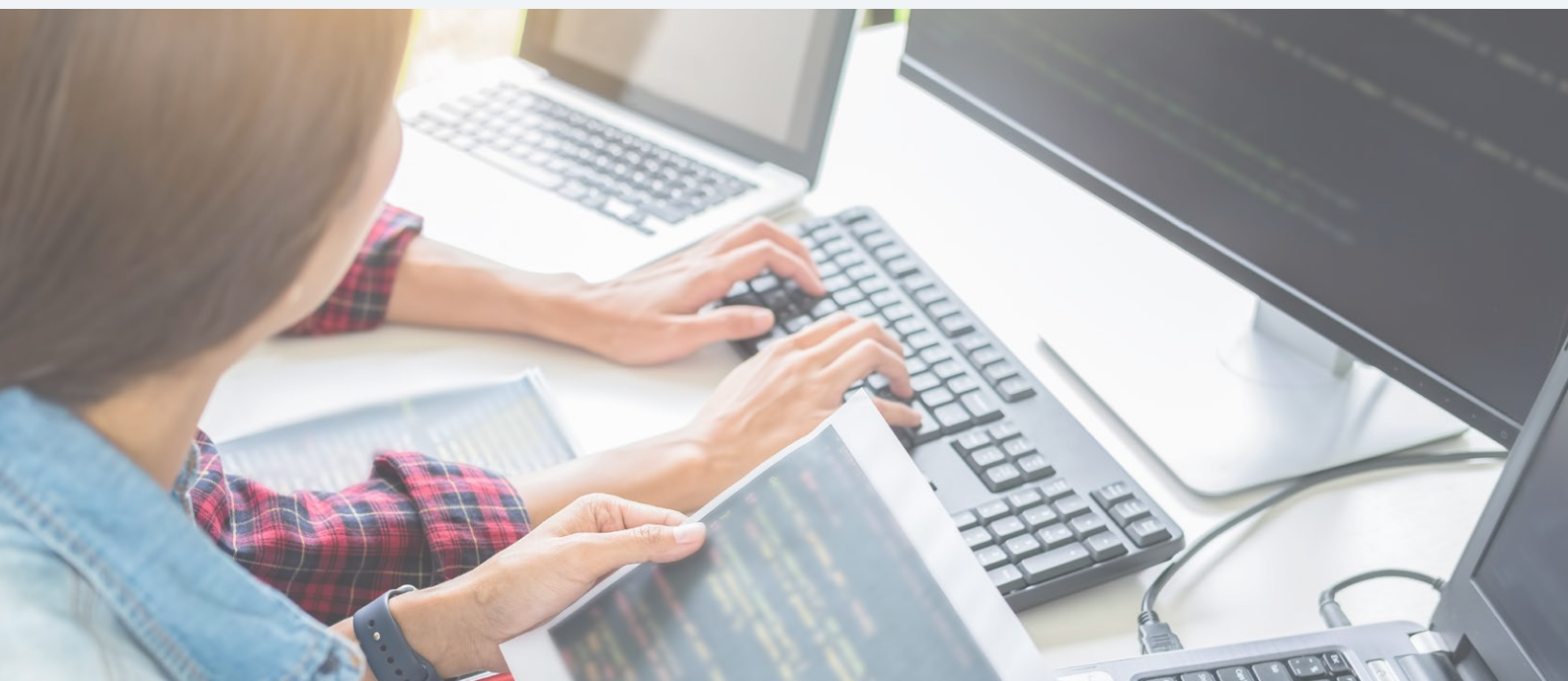
Certification Benefits

What IT Certification Offers

Recognition
of having required skills

73%
Experienced a Greater Demand for Their Skills

January 2019 issue of Certification Magazine's annual salary survey

Opportunities
through new skills

65%
Received Positive Impact on Professional Image

January 2018 issue of Certification Magazine's annual salary survey

Confidence and Respect
by peers and management

71%
Said Certification was a Key Factor in Recent Raise

January 2019 issue of Certification Magazine's annual salary survey

The kind of longevity suggests that earning and maintaining a certification can keep you moving forward in your career, perhaps indefinitely.

What Oracle Certification Offers

By becoming a certified **Oracle Database Administrator Professional**, you demonstrate the full skill set needed to perform day to day administration of the Oracle Database.

Preparing to take the Oracle Database certification exam broadens your knowledge and skills by exposing you to a wide array of important database features, functions and tasks. Oracle Database certification preparation teaches you how to perform complex, hands-on activities through labs, study and practice.

Additionally, Oracle certification exams validate your capabilities using real-world, scenario-based questions that assess and challenge your ability to think and perform.

Oracle Certification Innovation with Digital Badging

Certification that Signifies Your Readiness to Perform
Earned badges represent recognized skills and capabilities

Display Your Oracle Certification Badge
You've earned it. Get the recognition you deserve.

**2019 Oracle Certified Professional
Oracle Database Administrator**

Display Your Achievement
A secure way to display and share your certification achievement

Modern Representation of Skills Tied to Real Time Job Markets
View from your profile and apply to jobs that are matched to your skills; based on location, title, employers or salary range

Use Your Badge to Apply for Jobs

Benefits
Oracle Certification Signifies a Candidate's Readiness to Perform

Boost Your Professional Image

- Industry Recognized
- Credible
- Role Based
- Product Focused Across Database, Applications, Cloud, Systems, Middleware and Java
- Globally one of the top 10 certification programs available

Learn More

Exam Preparation

By passing these exams, a certified individual proves fluency in and solid understanding of the skills required to be an Oracle Database Administrator.

Recommendations to successfully prepare for **Oracle Database Administration I | 1Z0-082** and **Oracle Database Administration II | 1Z0-083** exams are:

You should have

- Experience with Oracle Database
- Knowledge of database administration concepts and techniques
- Experience with SQL Fundamentals

You would benefit in having experience in

- Writing Pl/SQL programs
- Having hands on experience as an Oracle Database Administrator:
  - o Creating tablespaces, redo logs users and roles
  - o Administering privileges
  - o Configuring and using RMAN for backup and recovery scenarios
  - o Configuring and using Multi-Tenant
  - o Deploying, Patching and maintaining Oracle Database installations

Attend Recommended Oracle Training

The courses below are currently available and are terrific tools to help you prepare not only for your exams, but also for your job as an Oracle Database Administrator.

The new **Oracle Database Administration Learning Subscription** also helps you prepare for these exams with 24/7 access to continually updated training and hands-on labs and integrated certification.

Recommended for **1Z0-082**

- Oracle Database: Administration Workshop
- Oracle Database: Introduction to SQL

Recommended for **1Z0-083**

- Oracle Database: Deploy, Patch and Upgrade Workshop
- Oracle Database: Backup and Recovery Workshop
- Oracle Database: Managing Multitenant Architecture
- Oracle Database Administration: Workshop
- Oracle Database 19c: New Features for Administrators
- Oracle Database 18c: New Features for Administrators (for 10g and 11g OCAs and OCPs)
- Oracle Database 12c R2: New Features for 12c R1 Administrators (12c R1 OCAs and OCPs)
- Oracle Database 11g: New Features for Administrators (for 10g OCAs and OCPs)

Exam Topics for Oracle Database Administration I | 1Z0-082

The following topics are covered in the **Oracle Database: Administration Workshop course**.

Understanding Oracle Database Architecture

- Understanding Oracle Database Instance Configurations
- Understanding Oracle Database Memory and Process Structures
- Understanding Logical and Physical Database Structures
- Understanding Oracle Database Server Architecture

Managing Users, Roles and Privileges

- Assigning Quotas to Users
- Applying the Principal of Least Privilege
- Creating and Assigning Profiles
- Administering User Authentication Methods
- Managing Oracle Database Users, Privileges, and Roles

Moving Data

- Using External Tables
- Using Oracle Data Pump
- Using SQL*Loader

Accessing an Oracle Database with Oracle supplied Tools

- Using the Database Configuration Assistant (DBCA)
- Using Oracle Enterprise Manager Cloud Control
- Using racle enterprise Manager Database Express
- Using SQL Developer
- Using SQL Plus

Managing Tablespaces and Datafiles

- Viewing Tablespace Information
- Creating, Altering and Dropping Tablespaces
- Managing Table Data Storage
- Implementing Oracle Managed Files
- Moving and Renaming Online Data Files

Managing Database Instances

- Starting Up Oracle Database Instances
- Using Data Dictionary Views
- Shutting Down Oracle Database Instances
- Using Dynamic Performance Views
- Using the Automatic Diagnostic Repository (ADR)
- Using the Alert Log and Trace Files
- Managing Initialization Parameter Files

Managing Storage

- Managing Resumable Space Allocation
- Shrinking Segments
- Deferring Segment Creation
- Using Space-Saving Features
- Deploying Oracle Database Space Management Features
- Managing Different Types of Segments
- Using Table and Row Compression
- Understanding Block Space Management

Configuring Oracle Net Services

- Using Oracle Net Services Administration Tools
- Configuring Communication Between Database Instances
- Configuring the Oracle Net Listener
- Connecting to an Oracle Database Instance
- Comparing Dedicated and Shared Server Configurations
- Administering Naming Methods

Managing Undo

- Understanding Transactions and Undo Data
- Storing Undo Information
- Configuring Undo Rentention
- Comparing Undo Data and Redo Data
- Understanding Temporary Undo

Exam Topics for Oracle Database Administration I | 1Z0-082

The following topics are covered in the **Oracle Database: Introduction to SQL course.**

Restricting and Sorting Data

- Applying Rules of precedence for operators in an expression
- Limiting Rows Returned in a SQL Statement
- Using Substitution Variables
- Using the DEFINE and VERIFY commands

Displaying Data from Multiple Tables Using Joins

- Using Self-joins
- Using Various Types of Joins
- Using Non equijoins
- Using OUTER joins

Understanding Data Definition Language

- Using Data Definition Language

Managing Data in Different Time Zones

- Working with CURRENT_DATE, CURRENT_TIMESTAMP, and LOCALTIMESTAMP
- Working with INTERVAL data types

Using Single-Row Functions to Customize Output

- Manipulating strings with character functions in SQL SELECT and WHERE clauses
- Performing arithmetic with date data
- Manipulating numbers with the ROUND, TRUNC and MOD functions
- Manipulating dates with the date function

Using Subqueries to Solve Queries

- Using Single Row Subqueries
- Using Multiple Row Subqueries

Managing Sequences, Synonyms, Indexes

- Managing Indexes
- Managing Synonyms
- Managing Sequences

Using Conversion Functions and Conditional Expressions

- Applying the NVL, NULLIF, and COALESCE functions to data
- Understanding implicit and explicit data type conversion
- Using the TO_CHAR, TO_NUMBER, and TO_DATE conversion functions
- Nesting multiple functions

Using SET Operators

- Matching the SELECT statements
- Using the ORDER BY clause in set operations
- Using The INTERSECT operator
- Using The MINUS operator
- Using The UNION and UNION ALL operators

Managing Views

- Managing Views

Retrieving Data using the SQL SELECT Statement

- Using Column aliases
- Using The DESCRIBE command
- Using The SQL SELECT statement
- Using concatenation operator, literal character strings, alternative quote operator, and the DISTINCT keyword
- Using Arithmetic expressions and NULL values in the SELECT statement

Reporting Aggregated Data Using Group Functions

- Restricting Group Results
- Creating Groups of Data
- Using Group Functions

Managing Tables using DML statements

- Managing Database Transactions
- Using Data Manipulation Language
- Controlling transactions

Managing Schema Objects

- Creating and using temporary tables
- Managing constraints

Exam Topics for Oracle Database Administration II | 1Z0-083

The following topics are covered in the **Oracle Database: Managing Multitenant Architecture Ed 1 course**.

Creating CDBs and Regular PDBs

- Configure and create a CDB
- Create a new PDB from the CDB seed
- Explore the structure of PDBs

Backup and Duplicate

- Perform Backup and Recover CDBs and PDBs
- Duplicate an active PDB
- Duplicate a Database

Manage Application PDBs

- Explain the purpose of application root and application seed
- Define and create application PDBs
- Install, upgrade and Patch applications
- Create and administer Application PDBS
- Clone PDBs and Application containers
- Plug and unplug operations with PDBs and application containers
- Comparing Local Undo Mode and Shared Undo Mode

Recovery and Flashback

- Restore and Recovering Databases with RMAN
- Perform CDB and PDB flashback

Manage CDBs and PDBs

- Manage PDB service names and connections
- Manage startup, shutdown and availability of CDBs and PDBs
- Change the different modes and settings of PDBs
- Evaluate the impact of parameter value changes
- Performance management in CDBs and PDBs
- Control CDB and PDB resource usage with the Oracle Resource Manager

Upgrading and Transporting CDBs and Regular PDBs

- Upgrade an Oracle Database
- Transport Data

Manage Security in Multitenant databases

- Manage Security in Multitenant databases
- Manage PDB lockdown profiles
- Audit Users in CDBs and PDBs
- Manage other types of policies in application containers

Exam Topics for Oracle Database Administration II | 1Z0-083

The following topics are covered in the **Oracle Database: Backup and Recovery Workshop course**.

Backup Strategies and Terminology

- Perform Full and Incremental Backups and Recoveries
- Compress and Encrypt RMAN Backups
- Use a media manager
- Create multi-section backups of very large files
- Create duplexed backup sets
- Create archival backups
- Backup of recovery files
- Backup non database files
- Back up ASM meta data

Using Flashback Technologies

- Configure your Database to support Flashback
- Perform flashback operations

Diagnosing Failures

- Detect and repair database and database block corruption
- Diagnosing Database Issues

Transporting Data

- Transport Data

Restore and Recovery Concepts

- Employ the best Oracle Database recovery technology for your failure situation
- Describe and use Recovery technology for Crash, Complete, and Point-in-time recovery

Duplicating a Database

- Duplicate Databases

Configuring and Using RMAN

- Configure RMAN and the Database for Recoverability
- Configureand Using an RMAN recovery catalog

Performing Recovery

- Restore and Recovering Databases with RMAN
- Perform Non RMAN database recovery

RMAN Troubleshooting and Tuning

- Interpret the RMAN message output
- Diagnose RMAN performance issues

Exam Topics for Oracle Database Administration II | 1Z0-083

The following topics are covered in the **Oracle Database: Deploy, Patch and Upgrade Workshop course**.

Install Grid Infrastructure and Oracle Database

- Install Grid Infrastructure for a Standalone server
- Install Oracle Database software

Upgrading to Oracle Grid Infrastructure

- Upgrade Oracle Grid Infrastructure

Creating an Oracle Database by using DBCA

- Create, Delete and Configure Databases using DBCA

Upgrade the Oracle Database

- Plan for Upgrading an Oracle Database
- Upgrade an Oracle Database
- Perform Post-Upgrade tasks

Patching Grid Infrastructure and Oracle Database

- Patch Grid Infrastructure and Oracle Database

Oracle Database 18c: New Features

- Image and RPM based Database Installation

Oracle Restart

- Configure and use Oracle Restart to manage components

Install Grid Infrastructure for a Standalone server

- Rapid Home Provisioning

Exam Topics for Oracle Database Administration II | 1Z0-083

The following topics are covered in the **Oracle Database 19c: New Features for Administrators course**.

Using General Overall Database Enhancements

- Install Oracle Database software
- Create, Delete and Configure Databases using DBCA
- Creating CDBs and Regular PDBs
- Use Miscellaneaous 19c New Features

Using Availability Enhancements

- Use an RMAN recovery catalog
- Use Flashback Database

Using Diagnosibility Enhancements

- Use new Diagnoseability Features

Exam Topics for Oracle Database Administration II | 1Z0-083

The following topics are covered in the **Oracle Database: Administration Workshop course**

Monitoring and Tuning Database Performance

- Managing Memory Components
- Understanding The Automatic Workload Repository (AWR)
- Understanding The Advisory Framework
- Monitoring Wait Events, Sessions, and Services
- Managing Metric Thresholds and Alerts
- Understanding and Using The Performance Tuning Methodology
- Performing Performance Planning
- Understanding The Automatic Database Diagnostic Monitor (ADDM)

Tuning SQL Statements

- Understanding The Oracle Optimizer
- Using The SQL Tuning Advisor
- Managing Optimizer Statistics
- Using The SQL Access Advisor
- Understanding The SQL Tuning Process

Sample Questions for Oracle Database Administration I | 1Z0-082

1. Which two statements are true about the Oracle Database server architecture?

    A. An Oracle Database server process represents the state of a user's login to an instance.

    B. An Oracle Database server process is always associated with a session.

    C. Each server process has its own User Global Area (UGA).

    D. A connection represents the state of a user's login to an instance.

    E. The entire data dictionary is always cached in the large pool.

2. Which two statements are true about the Oracle Database server during and immediately after `SHUTDOWN IMMEDIATE`?

    A. New connection requests made to the database instance are refused.

    B. Uncommitted transactions are rolled back automatically.

    C. All existing connections to the database instance remain connected until all transactions either roll back or commit.

    D. Uncommitted transactions are allowed to continue to the next `COMMIT`.

    E. All existing transactions are aborted immediately.

3. Which three statements are true about Oracle database block space management?

    A. A row can be migrated to a block in a different extent than the extent containing the original block.

    B. An insert statement can result in a migrated row.

    C. An update statement cannot cause chained rows to occur.

    D. A row can be migrated to a block in the same extent as the extent containing the original block.

    E. An insert statement can result in a chained row.

Answers
1. **C, D**   *2.* **A, B**   *3.* **A, D, E**

4. An Oracle Database server session has an uncommitted transaction in progress which updated 5000 rows in one table.

In which two situations does the transaction complete, thereby committing the updates?

A. When a DDL statement is executed successfully by same user in a different session.

B. When a DDL statement is executed successfully by the user in the same session.

C. When a DML statement is executed successfully by same user in a different session.

D. When a DML statement is executed successfully by the user in the same session.

E. When a DBA issues a successful SHUTDOWN NORMAL statement and the session terminates normally.

5. Which two statements are true about indexes and their administration in an Oracle database?

A. An index can be scanned to satisfy a query without the indexed table being accessed.

B. A non-unique index can be converted to a unique index using a Data Definition Language (DDL) command.

C. A descending index is a type of bitmapped index.

D. An invisible index is maintained when a Data Manipulation Language (DML) command is performed on its underlying table.

E. An index is always created by scanning the key columns from the underlying table.

6. Which two statements are true about sequences in a single instance Oracle database?

A. Sequences that start with 1 and increment by 1 can never have gaps.

B. A sequence can issue the same number more than once.

C. Sequence numbers that are allocated require a `COMMIT` statement to make the allocation permanent.

D. A sequence can provide numeric values for more than one column or table.

E. The data dictionary is always updated each time a sequence number is allocated.

Answers
4. **B, E**   *5.* **A, D**   *6.* **B, D**

7. Examine the description of the `SALES` table:

```
Name                            Null?    Type
------------------------------- -------- --------------
PRODUCT_ID                      NOT NULL NUMBER(10)
CUSTOMER_ID                     NOT NULL NUMBER(10)
TIME_ID                         NOT NULL DATE
CHANNEL_ID                      NOT NULL NUMBER(5)
PROMO_ID                        NOT NULL NUMBER(5)
QUANTITY_SOLD                   NOT NULL NUMBER(10,2)
PRICE                                    NUMBER(10,2)
AMOUNT_SOLD                     NOT NULL NUMBER(10,2)
```

The `SALES` table has 55,000 rows.

Examine this statement:

```
CREATE TABLE mysales (prod_id, cust_id, quantity_sold, price)
AS
SELECT product_id, customer_id, quantity_sold, price
  FROM sales
  WHERE 1 = 2;
```

Which two statements are true?

A. `MYSALES` is created with no rows.

B. `MYSALES` will have no constraints defined regardless of which constraints might be defined on `SALES`.

C. `MYSALES` has `NOT NULL` constraints on any selected columns which had that constraint in the `SALES` table.

D. `MYSALES` is created with 2 rows.

E. `MYSALES` is created with 1 row.

Answers
7. **A, C**

Sample Questions for Oracle Database Administration II | 1Z0-083

1. Which three are true about an application container?

    A. It always contains multiple applications.

    B. Two or more application PDBs in the same application container can share access to tables.

    C. It can have new application PDBs created by copying `PDB$SEED`.

    D. Two or more application PDBs in the same application container can be given exclusive access to some tables.

    E. It always has a new application PDBs created by copying `PDB$SEED`.

    F. It always contains a single application.

2. `RMAN` has just been connected to a target database and the recovery catalog database.

In which two cases would an automatic partial resynchronization occur between this target database's control file and the `RMAN` recovery catalog?

    A. When any control file metadata for data file backups or image copies is now older than `CONTROL_FILE_RECORD_KEEP_TIME`.

    B. When a new data file is added to a tablespace in a registered target database.

    C. When a backup of the current `SPFILE` is created.

    D. When the target is first registered.

    E. When any control file metadata for archive log backups or image copies is now older than `CONTROL_FILE_RECORD_KEEP_TIME`.

3. Which two are true about Oracle Grid Infrastructure for a Standalone Server?

    A. Oracle Restart can be used without using ASM for databases.

    B. Oracle Restart can attempt to restart a failed ASM instance automatically.

    C. It must be installed before Oracle Database software is installed.

    D. It must be installed after Oracle Database software is installed.

    E. It allows ASM binaries to be installed without installing Oracle Restart.

    F. It allows Oracle Restart binaries to be installed without installing ASM.

Answers
1. **B, C, D**   *2.* **A, E**   *3.* **A, B**

4. Which two are true about creating container databases (CDBs) and pluggable databases (PDBs) in Oracle 19c and later releases?

    A. A CDB can be duplicated using the Database Configuration Assistant (DBCA) in silent mode.

    B. A CDB can be duplicated using Recovery Manager (RMAN) with no configuration required before starting the duplication.

    C. A PDB snapshot must be a full copy of a source PDB.

    D. A PDB snapshot can be a sparse copy of a source PDB.

    E. A CDB can be duplicated only by using the Database Configuration Assistant (DBCA).

5. Which two are true about the Oracle Optimizer?

    A. It requires system statistics when generating SQL execution plans.

    B. It always generates an index access operation when a statement filters on an indexed column with an equality operator.

    C. It ignores stale object statistics in the Data Dictionary.

    D. It can automatically re-optimize execution plans that were detected to be sub-optimal when executing.

    E. It can re-write a statement internally in order to generate a more optimal plan.

Answers
4. **A, D**　*5.* **D, E**

Exam Registration Process

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Create a Pearson VUE login ❯

Exam Score

After you have taken your exam,
view your results by visiting CertView.

CertView ❯

Oracle Certification Program Candidate Agreement

In order to take your Oracle certification, you will need to agree to the Oracle Certification Program Candidate Agreement. Please review this document by going here.

Oracle Certification Program Guidelines

Learn more about Oracle Certification policies here.

This certification overview and sample questions were created in June 2019. The content is subject to change, please always check the web site for the most recent information regarding certifications and related exams: education.oracle.com/certification