

**ACCIÓN FORMATIVA : ADMINISTRACIÓN DE ORACLE 11G****OBJETIVOS DE LA ACCIÓN FORMATIVA**

- Formar y preparar a los alumnos para la adecuada administración de base de datos en la plataforma Oracle 11g y la consecución de la certificación OCA.
- El primero modulo consistirá en una introducción al SQL de ORACLE 9i (1Z0-007)
- El segundo revisará los fundamentos básicos que permitan instalar, configurar y administrar una base de datos ORACLE 11g (1Z0-052)

**CONTENIDOS****INTRODUCTION TO ORACLE9I SQL®****Writing a Basic SQL Statement**

- List the capabilities of SQL SELECT statements
- Execute a basic SELECT statement
- Differentiate between SQL statements and iSQL\*Plus commands

**Restricting and Sorting Data**

- Limit the rows retrieved by a query
- Sort the rows retrieved by a query

**Single Row Functions**

- Describe various types of functions available in SQL
- Use character, number, and date functions in SELECT statements
- Use conversion functions

**Displaying Data from Multiple Tables**

- Write SELECT statements to access data from more than one table using equality and nonequality joins
- View data that generally does not meet a join condition by using outer joins
- Join a table to itself using a self-join

**Aggregating Data Using Group Functions**

- Identify the available group functions
- Use group functions
- Group data using the GROUP BY clause
- Include or exclude grouped rows by using the HAVING clause

**Subqueries**

- Describe the types of problems that subqueries can solve
- Define subqueries

- List the types of subqueries
- Write single-row and multiple-row subqueries

#### **Producing Readable Output with iSQL\*Plus**

- Produce queries that require a substitution variable
- Produce more readable output
- Create and execute script files

#### **Manipulating Data**

- Describe each DML statement
- Insert rows into a table
- Update rows in a table
- Delete rows from a table
- Merge rows in a table
- Control transactions

#### **Creating and Managing Tables**

- Describe the main database objects
- Create tables
- Describe the datatypes that can be used when specifying column definition
- Alter table definitions
- Drop, rename and truncate tables

#### **Including Constraints**

- Describing Constraints
- Create and maintain constraints

#### **Creating Views**

- Create, maintain and use sequences
- Create and maintain indexes
- Create private and public synonyms

### **ORACLE DATABASE 11G: ADMINISTRATION I**

#### **Exploring the Oracle Database Architecture**

- Explain the Memory Structures
- Describe the Process Structures
- Overview of Storage Structures

#### **Preparing the Database Environment**

- Identify the tools for Administering an Oracle Database
- Plan an Oracle Database installation
- Install the Oracle software by using Oracle Universal Installer (OUI)
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#### **Creating an Oracle Database**

- Create a database by using the Database Configuration Assistant (DBCA)

### **Managing the Oracle Instance**

- Setting database initialization parameters
- Describe the stages of database startup and shutdown
- Using alert log and trace files
- Using data dictionary and dynamic performance views

### **Configuring the Oracle Network Environment**

- Configure and Manage the Oracle Network
- Using the Oracle Shared Server architecture

### **Managing Database Storage Structures**

- Overview of tablespace and datafiles
- Create and manage tablespaces
- Space management in tablespaces

### **Administering User Security**

- Create and manage database user accounts
- Grant and revoke privileges
- Create and manage roles
- Create and manage profiles

### **Managing Data and Concurrency**

- Monitor and resolve locking conflicts

### **Managing Undo Data**

- Overview of Undo
- Transactions and undo data
- Managing undo

### **Implementing Oracle Database Security**

- Database Security and Principle of Least Privilege
- Work with Standard Database Auditing

### **Database Maintenance**

- Use and manage optimizer statistics
- Use and manage Automatic Workload Repository (AWR)
- Use advisory framework
- Manage Alerts and Thresholds

### **Performance Management**

- Use Automatic Memory Management
- Use Memory Advisors
- Troubleshoot invalid and unusable objects

### **Intelligent Infrastructure Enhancements**

- Use the Enterprise Manager Support Workbench

- Managing Patches

### **Backup and Recovery Concepts**

- Identify the types of failure that can occur in an Oracle database
- Describe ways to tune instance recovery
- Identify the importance of checkpoints, redo log files, and archived log files
- Overview of flash recovery area
- Configure ARCHIVELOG mode

### **Performing Database Backups**

- Create consistent database backups
- Back up your database without shutting it down
- Create incremental backups
- Automate database backups
- Manage backups, view backup reports and monitor the flash recovery area

### **Performing Database Recovery**

- Overview of Data Recovery Advisor
- Use Data Recovery Advisor to Perform recovery (Control file, Redo log file and Data file)

### **Moving Data**

- Describe and use methods to move data (Directory objects, SQL\*Loader, External Tables)
- Explain the general architecture of Oracle Data Pump
- Use Data Pump Export and Import to move data between Oracle databases