Oracle® Certification Program Candidate Guide

Oracle9i™ Database Administrator Certified Associate

Oracle9i™ Database Administrator Certified Professional

Oracle9i™ Database Administrator Certified Master

November 2002

ORACLE® CERTIFIED ASSOCIATE

ORACLE® CERTIFIED PROFESSIONAL

ORACLE® CERTIFIED MASTER

Contents

Oracle Candidate Certification Guide

Oracle9i™ Database Administrator Certified Associate
Oracle9i™ Database Administrator Certified Professional
Oracle9i™ Database Administrator Certified Master

November 2002

Visit the Oracle Certification Program website at http://www.oracle.com/education/certification/

1 The Benefits of Oracle Certification

The demand for professionals in information technology (IT) is high, and the competition for jobs is intense. Individuals, experienced or new to the profession, need to know what skills make them attractive to employers. Employers look for ways to distinguish employees and prospective employees who have the solid foundation of skills needed for effective performance.

The Oracle Certification Programs help the IT industry make these distinctions by establishing a standard of competence in key entry level and professional job roles.

An Oracle Certification is a valuable, industry-recognized credential that signifies a proven level of knowledge and ability. Each higher level of Oracle certification brings a higher standard of benchmarked skill and ability, which can lead to greater opportunities and higher pay.

"Oracle Certified Professionals earn 28% more money than the average IT certified professionals." [1]

Benefits to the Technical Professional

An *Oracle Associate Certification (OCA)* demonstrates that you have a solid understanding of the foundation skills of a given job role which can be applied at an apprentice or entry level.

By earning your OCA designation you can gain increased entry level job opportunities. The OCA is the stepping stone to starting a success-filled career as an Oracle Professional.

Beyond OCA, by becoming an *Oracle Certified Professional (OCP)* you demonstrate your understanding of the full range of skills required by Oracle professionals in your chosen job role. The OCP is in high demand in today's marketplace, and that level of demand is expected to grow with each new installation of Oracle technologies around the world. Oracle Certification helps raise your visibility and increases your access to the industry's most challenging opportunities.

"Database skills continue to be included in Hot Job Skills Listings for 2002" [2]

The OCM is the highest credential an Oracle professional can earn in the Oracle Certification Program. An Oracle DBA Certified Master is a top-level Oracle expert who has in depth technical knowledge of the Oracle data server and industry experience managing mission critical Oracle database systems and applications. An Oracle Certified Master is looked upon as an expert within their organization, among their peers, and accross the industry.

The true value of earning an Oracle Certification credential is increased opportunity. With more opportunity comes career growth and higher pay.

"The most valued skills in 2002 are in e-commerce, Oracle, application development and Java." [3]

Benefits to the IT Employer

The Oracle Certification Programs are also valuable to hiring managers who want to distinguish among candidates for critical IT positions. For companies that send employees through annual IT training, certification helps ensure a return on the training investment by validating the knowledge and understanding gained in training sessions. Companies can also combine certification with an employee development program to enhance employee loyalty and performance on the job. Hiring certified professionals can have a direct impact on a company's success.

1 Source: "Certification Salary Survey", Certification Magazine, December, 2000
2 Source: "Hot Job Skills for the Year Ahead", Information Week.com, January, 2002
3 Source: "Jumping Ship - Survey says IT worker retention remains a challenge.", Metrics - CIO, May 2002

2 *Oracle9i Database Administrator Certified Associate Oracle9i Database Administrator Certified Professional Oracle9i Database Administrator Certified Master Paths*

Oracle9*i* DBA Certification Overview

The expertise of Oracle database administrators (DBAs) is integral to the success of today's increasingly complex system environments. The best Certified Professional DBAs operate primarily behind the scenes. They are on watch for ways to fine-tune day-to-day performance and to prevent unscheduled crises, such as a crashed database or hours of expensive down-time. This critical work requires a broad understanding of the architecture and processes of the Oracle database, as well as plenty of hands-on experience solving problems. The best DBAs know they stand between optimal performance and an event that could bring their company to a standstill.

Oracle9*i* Database Administrator Certified Associate (OCA)

The Oracle9*i* Database Administrator Certified Associate (OCA) Track is an entry-level credential for candidates who have a proven foundation of basic knowledge which they can build upon as they work toward a career as an Oracle database administrator. Two tests are required. OCA builds toward the Oracle Certified Professional (OCP) and Oracle9*i* DBA Certified Master credentials.

Oracle9*i* Database Administrator Certified Professional (OCP)

By moving upward and earning OCP status, Oracle Professionals demonstrate the complete set of skills required for working independently as an expert DBA. The OCP credential will provide candidates with a tool to gain increased opportunity and higher pay. The OCP DBA path requires four tests - two required for OCA certification plus two more. Additionally, Oracle now requires (as of September 1, 2002) all newly starting OCP candidates to complete one Oracle University hands-on course in preparation for their exams and future role as an Oracle technologist. OCP certification will help you translate your knowledge and skills into increased visibility through the market's most highly valued database benchmark program.

View the chart on the next page for a list of the required tests and the course requirement to earn the Oracle9*i* Database OCP credential.

Oracle9*i* DBA Certified Master (OCM)

Beyond OCP, highly experienced DBAs who are ready for a new challenge can earn the highly respected Oracle9*i* DBA Certified Master credential, which can help further grow their careers and open doors to senior DBA and consulting opportunities. The Oracle9*i* DBA Certified Master Program requires Oracle University coursework on advanced DBA topics and hands-on demonstration of DBA skills in a live application environment. For more information on this offering, please consult the Oracle Certification Program website.

Upgrading your current OCP Credential to Oracle9*i*

Oracle8*i* to Oracle9*i* Upgrade Path (1 test):
Candidates certified on Oracle8*i* can take test 1Z0-030 Oracle9*i* New Features for Administrators to upgrade their certification to Oracle9*i*.

Oracle8 to Oracle8*i* Upgrade Path (1 test):
Candidates certified on Oracle8 can take test 1Z0-020 Oracle8*i*: New Features for Administrators to upgrade their certification to Oracle8*i*.

Oracle 7.3 to Oracle8 Upgrade Path (1 test):
Candidates certified on Oracle 7.3 can take test 1Z0-010 Oracle8: New Features for Administrators to upgrade their certification to Oracle8.

Candidate Qualifications

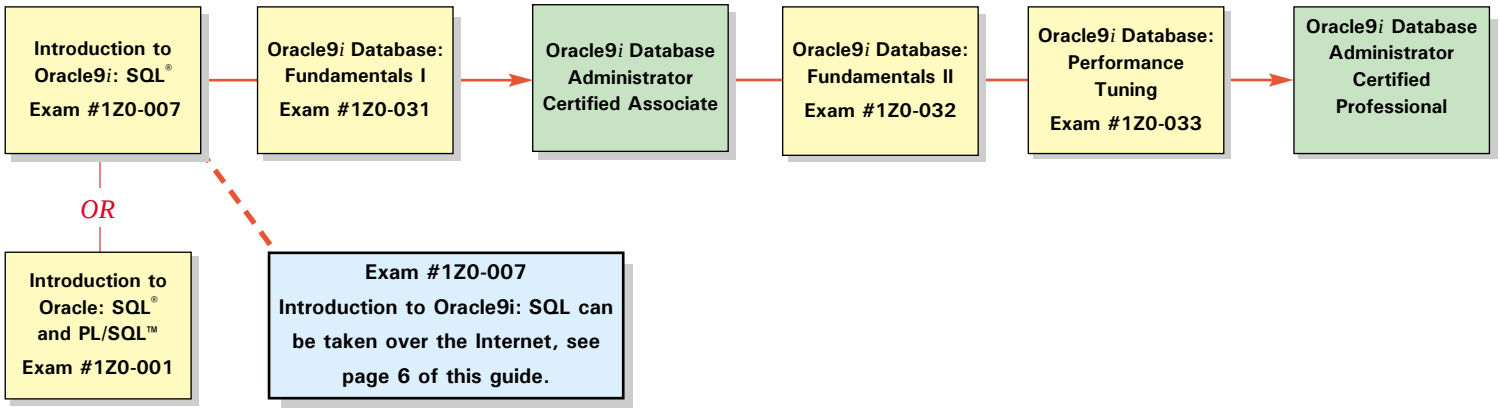
Most candidates for DBA certification combine up-to-date training with some level of on-the-job experience. There is no "typical" candidate. Many of the questions on the OCP tests are based on real job scenarios. In addition to the appropriate training, you will need hands-on experience with the software. Trial software versions and hands-on labs are included in most Oracle University training products.

Required Exams and Selected Hands-On Courses for the Oracle9*i* Database Certification Paths

Oracle customers and business partners are demanding hands-on experience - with all aspects of Oracle's database - from their Oracle Certified Professionals. In order to meet our commitment to our customers and constituents, Oracle University has recently made a significant investment toward building more validity and quality into its Certification Program including scenario-based exam questions.

Exams Required

Oracle9*i* Database Administrator Certified Associate
Oracle9*i* Database Administrator Certified Professional



Oracle University Hands-On Course Requirement

To earn your Oracle9i Certified Professional credential, you are required to pass the exams listed above and complete one of the selected Oracle University courses listed below.

- Introduction to Oracle9i: SQL
- Oracle9i Database: Fundamentals I
- Oracle9i Database: Fundamentals II
- Oracle9i Database: Performance Tuning
- Oracle9i New Features for Administrators
- Introduction to Oracle: SQL and PL/SQL*

Current OCP Candidates Tested BEFORE September 1, 2002

OCP candidates who have already completed at least one exam toward earning their OCP credential before September 1, 2002 will be permitted to earn their OCP without having to complete one of these hands-on courses.

New OCP Candidates Tested AFTER September 1, 2002

All new OCP candidates will continue to be permitted to enroll in required exams before fulfilling the hands-on course requirement, but will not be certified until completing both the exams and course requirement.

Note that candidates must first complete the OCA certification before moving forward to obtain an OCP credential.

OAI, OIA and Workforce Development Students

Please note that students completing their Oracle study with an Oracle Academic Initiative program, Oracle Internet Academy or an Oracle Workforce Development school do NOT need to complete one of these specific courses since these students are already completing this curriculum with their program of study.

Certified OCP DBAs

Currently certified DBA OCPs are not required to complete any additional hands-on courses, only to pass the upgrade exam.

The above courses are offered at Oracle University centers around the world as well as many Oracle Authorized Education Centers and Oracle Authorized Education Partners. Instructor-Led courses are also now available online allowing candidates to complete this requirement from their home or office should travel or time be a constraint.

To find more information on these courses, or to enroll please visit the Oracle University website at: www.oracle.com/education/ and select the Oracle9i DBA Learning Path.

* This Title is not available On-Line.

Oracle9*i* Database Administrator Certified Master Requirements

To earn your Oracle9*i* Database Administrator Certified Master credential, candidates are required to meet the requirements stated below.

Oracle9*i* DBA Certified Master (OCM)

The OCM is the highest credential an Oracle professional can earn in the Oracle Certification Program. An Oracle9*i* Database Administrator Certified Master is a top-level Oracle expert who has in depth technical knowledge of the Oracle data server and industry experience managing mission critical Oracle database systems and applications. An OCM is looked upon as an expert within their organization, among their peers, and across the industry.

Oracle9*i* Database OCM Practicum

To earn the Oracle9*i* Database Administrator Certified Master credential candidates must pass the practicum exam.

The Oracle9*i* DBA Oracle Certified Master practicum is a two day live application event where participants are required to complete a series of scenarios and resolve technical problems that will test their expertise in an Oracle9*i* Database environment. Participants will be scored on their ability to successfully complete assigned tasks.

The practicum will be conducted at an Oracle University facility in each global region. Contact your local Oracle University representative to find the Practicum location nearest you. Visit http://www.oracle.com/education/contact_info.html to view your local Oracle University contact information.

Practicum Registration Prerequisites

Prior to registering for the Oracle Certified Master practicum, a candidate must complete two requirements.

1. They must have completed their Oracle9*i* Database Administrator Certified Professional (OCP) credential.
2. A candidate must have taken two advanced DBA courses from Oracle University. Advanced courses are taught by top Oracle University instructors and offer hands-on experience for topics that may be addressed during the practicum. Advanced courses that are offered in an instructor-led online format, satisfy the requirement for candidacy to the OCM.

   Below is a listing of the Oracle University courses that meet the advcanced course requirement.

Oracle9*i* Database OCM Practicum Course Prerequisite

Prior to attending the OCM Practicum, candidates must attend two of the following courses listed below.

Database Applications

- Advanced PL/SQL
- Oracle9*i*: Program with PL/SQL
- Oracle9*i*: Advanced PL/SQL
- Oracle9*i*: SQL Tuning Workshop
- Oracle8*i*: SQL Statement Tuning Workshop

High Availability

- Oracle8*i*: Parallel Server Implementation
- Oracle9*i*: Database: Real Application Clusters

Data Warehouse and Large Scale Databases

- Oracle9*i*: Data Warehouse Administration
- Oracle9*i* Database: Implement Partioning
- Oracle8*i*: Implementing Scalable Systems

Networking and Distributed Systems

- Oracle9*i* Database: Advanced Replication
- Oracle8*i* Distributed Systems Part 2: Advanced Replication
- Administering the Oracle Internet Directory

Systems Management

- Oracle8*i:* Implementing Scalable Systems
- Oracle9*i*: Enterprise Manager
- Oracle Enterprise Manager V2.x

Security

- Oracle9*i* Database: Security

Oracle9*i* DBA Certified Master Practicum

An OCM candidate must successfully pass the Oracle9*i* DBA Certified Master practicum after having completed the required OU advanced learning requirements listed on the previous page.

Minimum Practicum Participant Skills

1. Proficient with Oracle9i SQL
2. Working knowledge of LINUX RedHat Advanced Server 2.1 command language including:
   a. Formatting and executing basic OS commands
   b. Creating and navigating through directory structures
   c. File management using copy, move, and delete
   d. Linux environment text editors
   e. Setting environment variables
3. The ability to locate and launch Oracle executables that include:
   a. RMAN utility
   b. Oracle Net Manager
   c. Oracle Net Configuration Assistant
   d. OEM
   e. Listener Utility
   f. OMS
   g. Oracle Password Utility
   h. Database Creation Assistant
4. Proficient with using Oracle Enterprise Manager
5. Proficient in using Oracle Net Manager and the Oracle Net Configuration Assistant to configure networking
6. Advanced knowledge and use of Oracle9i (v9.0.1.3) Enterprise Server technology and features
7. Familiarity with navigating through online Oracle documentation
8. Proficient with using Konqueror 2.2 browser software

Practicum Environment

The practicum will be conducted in a dedicated Oracle University classroom environment. An Oracle instructor will be responsible for proctoring the event, distributing scenarios, and collecting results. Participants will be randomly assigned a seat on the day of the event.

Participants will not be allowed to use personal documentation or notes during the practicum nor will they be permitted to collaborate with other participants. Cellular phones, pagers, and PDAs will not be allowed in the practicum classroom.

Each participant will be provided with a dedicated Linux server with Advanced Server 2.1 installed and the base Oracle server software. A complete online Oracle documentation set will be available to each participant.

Scoring

Participants will be scored on their ability to complete assigned tasks and to recover from various database failure scenarios. Information from each participant's environment will be collected at various points during the practicum and this information will be used to determine the final score. Participants will be provided with their score within two weeks of completing the practicum. Upon attaining a successful score, a participant will be awarded the Oracle9*i* Database Administrator Certified Master credential. If a participant does not achieve a passing score then they will be required to retake the entire practicum at a later date.

Practicum Objectives and Areas of Focus

Review the Oracle9*i* Database Administrator Certified Master Practicum objectives to gain insight into what to expect before completing the practicum. The objectives are located within the Test Content Checklist in the back of this guide.

3 *Preparing for the Oracle9i Database Tests*

Oracle recommends that you prepare for the Oracle9*i* Database exams by combining learning and prep offerings from Oracle University with your own practice and experience. Start by reviewing the topics covered on the exam in the Test Content Checklist in this guide. Then look over the following preparation methods for a combination that suits your background.

Learn Oracle From Oracle

There are a variety of options that allow complete flexibility to meet the needs of your schedule and budget. From intense in-class experiences with lots of hands-on labs to interactive online learning, OU offerings are the best way to prepare to become an Oracle Certified Associate or Oracle Certified Professional. These courses lay the foundation of knowledge you will need to pass the Oracle Certification tests and provide a venue for hands-on practice.

Refer to the Certification Requirements in Section 2 to chart your optimal preparation based on Oracle University training options. The corresponding Oracle University exam preparation course titles are the same as the Oracle Certification exam title.

Your local Oracle University representative can advise you on the best option. For more information, visit the Oracle University Web site at http://www.oracle.com/education/.

Preparing with Oracle University

Instructor-Led in-class Training

Build the in-depth knowledge and hands-on experience you need to succeed in your job role with our most popular and comprehensive training option. From in-class demonstrations led by expert Oracle University instructors, to realistic hands-on labs, Instructor-Led in-class courses provide you a dynamic learning environment.

Instructor-Led Online

Receive live instruction at your home or office and save time and travel expenses with Instructor-Led Online training. Expert Oracle instructors deliver the same quality training as in our classrooms, during 4 hours of daily online instruction.

Self-Paced Online

Learn at your own pace with a 90 day subscription to Oracle University courses delivered over the Internet . Leverage a variety of content such as pre-recorded instructor videos, demonstrations, product simulations and quizzes. Interact with expert Oracle instructors, who will assist you through the course material via online office hours.

Self-Paced CD-Rom

Study at your own pace with highly interactive Oracle University courses on CD-ROM. Reinforce your learning using the latest in multimedia instruction including video, animation, demonstrations, assessments and hands-on practices. Self-Paced CD-ROM courses offer a convenient, comprehensive, ongoing resource for you or your organization.

Additional Preparation Tools

Practice Tests

Oracle and Self Test Software have partnered to develop the highest quality practice tests available to individuals seeking Oracle Certified Associate and Oracle Certified Professional status. To purchase practice tests, visit the OCP web site at http://www.oracle.com/education/certification/sts.html.

Test Content Checklist

Use the Test Content Checklist in this guide to identify all of the test topics for which you must prepare. Oracle may make modifications to the Test Content Checklist, so visit the OCP Web site at http://www.oracle.com/education/certification/objectives/ to download the latest version of this guide before attending your exam appointments.

4 Registering for Your Tests

The OCP tests are offered through Prometric, the world's largest provider of testing to the information technology industry. Prometric features more than 1800 authorized Prometric testing centers worldwide.

Your first exam can be taken through the internet, and will not require you to go to a testing center. You can register at the time you wish to take the test. Access the exam through the Oracle Certification Program website. If you need to take this exam at a test center, follow the registration directions shown below for scheduling exams at Authorized Prometric Testing Centers.

All tests are delivered by computer. A brief tutorial precedes each test to familiarize you with the test delivery system. You should attempt to answer every question in the tests because incomplete answers are scored as incorrect.

Reviewing the Candidate Agreement

Candidates pursuing OCP certification must accept the terms of the Oracle Certified Professional Candidate Agreement before taking the tests.

You will be presented with the agreement on-screen before the exam starts. You can also review the agreement before your appointment by visiting the OCP Web site at www.oracle.com/education/certification/canagreemt.html

Internet Delivered Tests

Exam #1Z0-007 Introduction to Oracle9*i* SQL is available over the Internet. You may take this exam from your home, office, or any location with a internet connection of at least 33.6kps. Internet exam delivery in English currently supports Internet Explorer IE 4 and above. Internet exam delivery in languages other than English supports IE 5 and above. Netscape is NOT recommended.

Select the exam registration link from the Oracle Certification Program web site to register for and to take this test. You do not need to preregister. Candidates who do not have access to a fast Internet connection should take the exam at an Authorized Prometric Testing Center.

Scheduling Your Test at an Authorized Prometric Testing Center

1. There are two convenient ways to register for testing:

   a. Register online at www.oracle.com/education/certification. (Online registration is not available for beta exam registration.)

   b. Call the Prometric Regional Service Center (RSC) serving your country during normal business hours (a list of RSCs is located on the last page of this guide)

2. Make sure that you have both the number and title of the test that you are registering for. The Prometric customer service representative will ask for your name and contact information, as well as your preference as to date, time, and location for testing. Schedule your appointment to take the test at any available time Monday through Saturday during normal authorized Prometric testing center hours. Hours vary by location. Be sure to note when and where you are scheduled to take the test.

3. When you register, ask the Prometric customer service representative for a list of valid forms of identification that you will need to present when you take your test. You will not be allowed to take the test without valid identification.

4. Regular exam fees are equivalent to $125 US Dollars, plus any local taxes. Internet Delivered exams are equivalent to $90 US Dollars. The exam fee is payable to Prometric by major credit card (VISA, MasterCard, American Express and Switch Cards) at the time of registration. All discounts must be applied at the time of paying your exam fee.

5. You must schedule a test at least 24 hours in advance.

Test Registration, continued

Changing or Canceling Your Appointment

To cancel or reschedule your test appointment, you must call the Prometric Regional Service Center. The cancellation policy by region is:

- The Americas: One business day in advance
- Asia Pacific: By midday (Sydney time) the previous business day
- EMEA: Two business days in advance
- Japan: Three business days in advance

Candidates who do not appear for the test or who cancel less than one business day prior to the test will not receive a refund.

5 Taking Your Tests

Taking Introduction to Oracle9*i*: SQL over the Internet

The Introduction to Oracle9*i*: SQL exam is now delivered on the internet in an effort to make taking this first exam more accessible, flexible, and at a lower cost to the OCA candidate who is just getting started.

The exam can be taken anytime, from anywhere with a PC, current web browser (see page 6 of this Guide, Internet Delivered Tests, for the recommended browsers), and a recomended internet connection of at least 33.6kps.

To take this online exam, please visit the Oracle Certification Program website. There is no need for preregistration. Payment can be taken by credit card right through the internet.

Your score will be available to you immediately after completion of the exam and submittal of your file for grading. If you become disconnected during your exam, you will be able to resume where you left off once you reconnect, however the time clock will remain in effect. Internet exams have an additional window of 30 minutes to give you a time to resolve technical problems.

Taking a Test at an Authorized Prometric Testing Center

1. Arrive at the testing center at least 15 minutes prior to your scheduled appointment.
2. Sign the test log and present two forms of identification. One must be a government-issued photo identification. Both forms of identification must contain your signature.
3. The test administrator will give you a brief orientation and escort you to a computer terminal where you will take the test. You are not allowed to bring papers, books, bags, or calculators into the room.
4. Remember to adhere to the requirements set forth in Oracle Certification Candidate Agreement. You must agree to the terms and conditions in the agreement before completing any Oracle Certification exam. Any attempt to cheat, assist others, or remove exam content from the testing room will not be tolerated and may result in a zero score, disallowance of OCP credential, even prosecution by law.

Obtaining Your Test Results

You will receive your score report immediately after the test. Beta exam score reports are sent to candidates following analysis and scoring of the beta exam. Candidates completing a beta version of a test can expect their score reports 10-12 weeks following the beta period. Your results are automatically forwarded to Oracle following testing. Please keep a copy of all test reports for your records.

Retaking a Test

Candidates must wait 30 days before retaking a failed exam. There are no exceptions to this policy.

If you do not pass an Oracle Certification exam on the first attempt, Oracle encourages you to make use of the diagnostic feedback supplied with the score report to review the areas that need further study.

If you receive a low score, an Oracle University training course may be appropriate for you to gain more knowledge. Otherwise, if you only require skillset review in a few areas, we recommend you consult Oracle University Online Learning, where you will find each topic area available as a short course module. Most modules are only 45 minutes. Visit Online Learning at www.oracle.com/education/oln/.

6 *After You Are Certified*

Receiving Your Oracle Certification Program Welcome Kit

You will receive your Oracle Certified Associate or Oracle Certified Professional certificate by mail from Prometric within 30 days after successfully completing all the required exams and course requirements applicable. You should use your certificate as verification of your Oracle Certification credential.

If you do not receive your Welcome Kit, send an email to fulfillment@prometric.com and provide your name, Prometric ID number, current mailing address and daytime phone number.

Oracle Certified Professional Members Web Site

Upon completion of your Oracle Certified Professional credential, you will receive information on how to obtain a copy of the OCP logo in your Welcome Kit. The logo may be used on business cards and resumes. You will also receive a letter of congratulations from Oracle which will indicate how you can begin to access the wealth of OCP benefits that await you. This will include the access log in and password you will need to enter the OCP member online community.

The OCP Members site is only available to Oracle Certified Professionals, not Oracle Certified Associates.

Upgrade Your Certification to Oracle Certified Master

Oracle Certified Professionals are highly recognized for their abilities to provide intermediate to advanced level DBA skills to the IT marketplace. In order to answer the growing need for more senior level DBAs as well as consultants and other specialists, Oracle encourages those looking to advance their careers to consider the Oracle Certified Master Program. The OCM designation can help demonstrate that an Oracle professional is truly at the top of the field, and has added benefits, credibility, and tools to make these experts even more successful. To find out more, see the OCP website at www.oracle.com/education/certification.

Keeping Current with New Oracle Technology Releases

Oracle is committed to keeping the Oracle Certification Program current with the latest technology. To ensure the value of your Oracle Certified Professional credential, you may find it advantageous to upgrade your certification to the latest release.

Retirement of an OCP Track

Once Oracle announces the retirement of a track, you will have at least six months to pass the remaining exams in the retiring track. If you do not upgrade your certification by the deadline, you will be required to complete all tests within the new track to obtain the latest credential. Consult the OCP Web site for current testing requirements.

Updating your Demographic Information

Visit the Prometric web site at http://2test.com to update your demographic information.

Follow the steps below:

1. Select "Information Technology Certification" from the drop down menu and click "GO".
2. Log in to the site with your User Name and Password. If you have never registered online before, select the link to set up your online account.
3. In the left navigation bar under "Testing with Prometric", select "Update User Profile".
4. You may update your mailing address, telephone numbers and your email address.
5. Select "Next". Your OCP Candidate information is now updated.

7 *Special Testing Opportunities*

Special Opportunities: Beta and Tryout Tests

Oracle may offer beta or tryout versions of OCP tests as new and updated questions are developed. Beta and tryout tests are generally offered free or at a discount from the regular test price. Participating in beta and tryout tests is a good way to economize on your certification and to be among the first professionals to be certified on a new track or product release.

Beta score reports are sent to candidates following analysis and scoring of the beta test.

Visit the Oracle Certification Program website at http://www.oracle.com/education/certification/ to find beta and tryout opportunities. Oracle provides detailed descriptions of each beta and tryout offer to help you decide if the tests are right for you.

Visit the OCP Web site at http://www.oracle.com/education/certification/

Test Content Checklists

The following test content checklists show the objectives covered in the OCP exams.

Test Content Checklist

Introduction to Oracle9i: SQL®
(Exam# 1Z0-007)

Writing Basic SQL Select Statements

- ☐ 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 *i*SQL*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

- ☐ Describe constraints
- ☐ Create and maintain constraints

Creating Views

- ☐ Describe a view
- ☐ Create, alter the difinition, and drop a view
- ☐ Retrieve data through a view
- ☐ Insert, update, and delete data through a view
- ☐ Create and use an inline view
- ☐ Perform Top 'N' Analysis

Creating Other Databse Objects

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

Controlling User Access

- ☐ Create users
- ☐ Create Roles to ease setup and maintenance of the securiity model
- ☐ Use the GRANT and REVOKE statements to grant and revoke objects privileges

Test Content Checklist

Oracle9i Database: Fundamentals I (Exam# 1Z0-031)

Oracle Architectural Components

- ☐ Describe the Oracle architecture and its main components
- ☐ Describe the structures involved in connecting a user to an Oracle instance

Getting Started with the Oracle Server

- ☐ Identify common database administrative tools available to a DBA
- ☐ Identify the features of the Oracle Universal Installer
- ☐ Explain the benefits of Optimal Flexible Architecture
- ☐ Set up password file authentication
- ☐ List the main components of the Oracle Enterprise Manager and their uses

Managing an Oracle Instance

- ☐ Create and manage initialization parameter files
- ☐ Configure OMF
- ☐ Start up and shut down an instance
- ☐ Monitor the use of diagnostic files

Creating a Database

- ☐ Describe the prerequisites necessary for database creation
- ☐ Create a database using Oracle Database Configuration Assistant
- ☐ Create a database manually

Data Dictionary Content and Usage

- ☐ Identify key data dictionary components
- ☐ Identify the contents and uses of the data dictionary
- ☐ Query the data dictionary

Maintaining the Control File

- ☐ Explain the uses of the control file
- ☐ Describe the contents of the control file
- ☐ Multiplex and manage the control files
- ☐ Obtain control file information
- ☐ Manage the control file with Oracle Managed Files

Maintaining the Redo Log Files

- ☐ Explain the purpose of online redo log files
- ☐ Describe the structure of online redo log files
- ☐ Control log switches and checkpoints
- ☐ Multiplex and maintain online redo log files
- ☐ Manage online redo log files with OMF

Managing Tablespaces and Data Files

- ☐ Describe the logical structure of the database
- ☐ Create tablespaces
- ☐ Change the size of tablespaces
- ☐ Allocate space for temporary segments
- ☐ Change the status of tablespaces
- ☐ Change the storage settings of tablespaces
- ☐ Implement Oracle Managed Files

Storage Structure and Relationships

- ☐ Describe the logical structure of tablespaces within the database
- ☐ List the segment types and their uses
- ☐ List the keywords that control block space usage
- ☐ Obtain information about storage structures from the data dictionary

Managing Undo Data

- ☐ Describe the logical structure of segments within the database
- ☐ Describe the purpose of undo data
- ☐ Implement Automatic Undo Management

Managing Tables

- ☐ Identify the various methods of storing data
- ☐ Describe Oracle data types
- ☐ Distinguish between an extended versus a restricted ROWID
- ☐ Decribe the structure of a row

Exam #1Z0-031– Oracle9*i* Database: Fundamentals I, continued

- ☐ Create regular and temporary tables
- ☐ Manage storage structures within a table
- ☐ Reorganize, truncate, drop a table
- ☐ Drop a column within a table

Managing Indexes

- ☐ Describe the different types of indexes and their uses
- ☐ Create various types of indexes
- ☐ Reorganize indexes
- ☐ Drop indexes
- ☐ Get index information from the data dictionary
- ☐ Monitor the usage of an index

Maintaining Data Integrity

- ☐ Implement data integrity constraints
- ☐ Maintain integrity constraints
- ☐ Obtain constraint information from the data dictionary

Managing Password Security and Resources

- ☐ Manage passwords using profiles
- ☐ Adminster profiles
- ☐ Control use of resources using profiles
- ☐ Obtain information about profiles, password management and resources

Managing Users

- ☐ Create new database users
- ☐ Alter and drop existing database users
- ☐ Monitor information about existing users

Managing Privileges

- ☐ Identify system and object privileges
- ☐ Grant and revoke privileges
- ☐ Identify auditing capabilities

Managing Roles

- ☐ Create and modify roles
- ☐ Control availability of roles
- ☐ Remove roles
- ☐ Use predefined roles
- ☐ Display role information from the data dictionary

Using Globalization Support

- ☐ Choose a database character set and national character set for a database
- ☐ Specify the language-dependent behavior using initialization parameters, environment variables, and the ALTER SESSION command
- ☐ Use the different types of National Language Support (NLS) parameters
- ☐ Explain the influence on language-dependent application behavior
- ☐ Obtain information about Globalization Support usage

Test Content Checklist

Oracle9i Database: Fundamentals II (Exam# 1Z0-032)

Networking Overview

- ☐ Explain solutions included with Oracle9i for managing complex networks
- ☐ Describe Oracle networking add-on solutions

Basic Oracle Net Architecture

- ☐ Explain the key components of the Oracle Net layered architecture
- ☐ Explain Oracle Net Services role in client server connections
- ☐ Describe how web client connections are established through Oracle networking products

Basic Net Server-Side Configuration

- ☐ Identify how the listener responds to incoming connections
- ☐ Configure the listener using Oracle Net Manager
- ☐ Control the listener using the Listener Control Utility (lsnrctl)
- ☐ Describe Dynamic Service Registration
- ☐ Configure the listener for IIOP and HTTP connections

Basic Oracle Net Services Client-Side Configuration

- ☐ Describe the difference between host naming and local service name resolution
- ☐ Use Oracle Net Configuration Assistant to configure: Host Naming, Local naming method, Net service names
- ☐ Perform simple connection troubleshooting

Usage and Configuration of the Oracle Shared Server

- ☐ Identify the components of the Oracle Shared Server
- ☐ Describe the Oracle Shared Server architecture
- ☐ Configure the Oracle Shared Server
- ☐ Identify and explain usefulness of related dictionary views

Backup and Recovery Overview

- ☐ Describe the basics of database backup, restore and recovery
- ☐ List the types of failure that may occur in an Oracle environment
- ☐ Define a backup and recovery strategy

Instance and Media Recovery Structures

- ☐ Describe the Oracle processes, memory structures, and files relating to recovery
- ☐ Identify the importance of checkpoints, redo log files, and archived log files
- ☐ Describe ways to tune instance recovery

Configuring the Database Archiving Mode

- ☐ Describe the differences between Archivelog and Noarchivelog modes
- ☐ Configure a database for Archivelog mode
- ☐ Enable automatic archiving
- ☐ Perform manual archiving of logs
- ☐ Configure multiple archive processes
- ☐ Configure multiple destinations, including remote destinations

Oracle Recovery Manager Overview and Configuration

- ☐ Identify the features and components of RMAN
- ☐ Describe the RMAN repository and control file usage
- ☐ Describe channel allocation
- ☐ Describe the Media Management Library interface
- ☐ Connect to RMAN without the recovery catalog
- ☐ Configure the RMAN environment

User-Managed Backups

- ☐ Describe user-managed backup and recovery operations
- ☐ Discuss backup issues associated with read tablespaces

Exam #1Z0-032 – Oracle9*i* Database: Fundamentals II, continued

- ☐ Perform closed database backups
- ☐ Perform open database backups
- ☐ Back up the control file
- ☐ Perform cleanup after a failed online backup
- ☐ Use the DBVERIFY utility to detect corruption

RMAN Backups

- ☐ Identify types of RMAN specific backups
- ☐ Use the RMAN BACKUP command to create sets
- ☐ Back up the control file
- ☐ Back up the archived redo log files
- ☐ Use the RMAN COPY command to create image copies

User-Managed Complete Recovery

- ☐ Describe media recovery
- ☐ Perform recovery in Noarchivelog mode
- ☐ Perform complete recovery in Archivelog mode
- ☐ Restore datafiles to different locations
- ☐ Relocate and recover a tablespace by using archived redo log files
- ☐ Describe read-only tablespace recovery

RMAN Complete Recovery

- ☐ Describe the use of RMAN for restoration and recovery
- ☐ Perform recovery in Noarchivelog mode
- ☐ Perform complete recovery in Archivelog mode
- ☐ Restore datafiles to different locations
- ☐ Relocate and recover a tablespace by using archived redo log files

User-Managed Incomplete Recovery

- ☐ Describe the steps of incomplete recovery
- ☐ Perform an incomplete database recovery
- ☐ Identify the loss of current online redo log files

RMAN Incomplete Recovery

- ☐ Perform an incomplete database recovery using UNTIL TIME
- ☐ Perform an incomplete database recovery using UNTIL SEQUENCE

RMAN Maintenance

- ☐ Perform cross checking of backups and copies
- ☐ Update the repository when backups have been deleted
- ☐ Change the availability status of backups and copies
- ☐ Make a backup or copy exempt from the retention policy
- ☐ Catalog backups made with operating system commands

Recovery Catalog Creation and Maintenance

- ☐ Describe the contents of the recovery catalog
- ☐ Create the recovery catalog
- ☐ Maintain the recovery catalog by using RMAN commands
- ☐ Use RMAN to register, resynchronize, and reset a database
- ☐ Query the recovery catalog to generate reports and lists
- ☐ Create, store, and run scripts
- ☐ Describe methods for backing up and recovering the recovery catalog

Transporting Data Between Databases

- ☐ Describe the uses of the Export and Import utilities
- ☐ Describe Export and Import concepts and structures
- ☐ Perform simple Export and Import operations
- ☐ List guidelines for using Export and Import

Loading Data into a Database

- ☐ Demonstrate usage of direct-load insert operations
- ☐ Describe the usage of SQL*Loader
- ☐ Perform basic SQL*Loader operations
- ☐ List guidelines for using SQL*Loader and direct-load insert

Test Content Checklist

Oracle9i Database: Performance Tuning (Exam# 1Z0-033)

Overview of Oracle9*i* Performance Tuning

- ☐ Describe the roles associated with the database tuning process
- ☐ Describe the dependency between tuning in different development phases
- ☐ Describe service level agreements
- ☐ Describe the tuning goals
- ☐ Describe the most common tuning problems

Diagnostic and Tuning Tools

- ☐ Describe how the alert file is used
- ☐ Describe the statistics kept in the dynamic performance views
- ☐ Collect statistics using STATSPACK
- ☐ Describe how the STATSPACK collects statistics
- ☐ Describe other tools that can be used during tuning

Sizing the Shared Pool

- ☐ Measure and tune the library cache hit ratio
- ☐ Measure and tune the dictionary cache hit ratio
- ☐ Size and pin objects in the shared pool
- ☐ Tune the shared pool reserve space
- ☐ Describe user global area (UGA) and session memory considerations
- ☐ List other tuning issues related to the shared pool

Sizing the Buffer Cache

- ☐ Describe how the buffer cache is used by different Oracle processes
- ☐ Describe the tuning issues related to the buffer cache
- ☐ Monitor the use of the buffer cache, also the different pools within the buffer cache
- ☐ Describe dynamic SGA allocation
- ☐ Set the DB_CACHE_ADVICE parameter
- ☐ Create and size multiple buffer pools
- ☐ Detect and resolve free list contention

Sizing other SGA Structures

- ☐ Monitor and size the redo log buffer
- ☐ Monitor and size the java pool
- ☐ Configure and use multiple DBW processors

Database Configuration and I/O Issues

- ☐ List reasons for partitioning data in tablespaces
- ☐ Diagnose tablespace usage problems
- ☐ Describe how checkpoints work
- ☐ Monitor and tune checkpoints
- ☐ Monitor and tune redo logs

Optimize Sort Operations

- ☐ Describe how sorts are performed
- ☐ Identify the SQL operations which require sorting
- ☐ Create and monitor Temporary Tablespaces
- ☐ Describe ways to reduce total sorts and disk sorts

Diagnosing Contention For Latches

- ☐ Describe the purpose of latches
- ☐ Describe how to diagnose contention for latches
- ☐ Identify the resources to be tuned to minimize latch contention

Tuning Rollback (or UNDO) Segments

- ☐ Use the dynamic performance views to check rollback segment performance
- ☐ Reconfigure and monitor rollback segments
- ☐ Define the number and sizes of rollback segments
- ☐ Explain the concept of automatic undo management
- ☐ Create and maintain automatic managed undo tablespace

Exam #1Z0-033 – Oracle9*i* Database: Performance Tuning, continued

Monitoring and Detecting Lock Contention

- ☐ Define levels of locking
- ☐ List possible causes of contention
- ☐ Use Oracle utilities to detect lock contention
- ☐ Resolve contention in an emergency
- ☐ Prevent locking problems

Tuning Oracle Shared Server

- ☐ Identify issues associated with managing users in a Oracle Shared server processes
- ☐ Diagnose and resolve performance issues with Oracle Shared server processes
- ☐ Configure the Oracle Shared server environment to optimize performance

Application Tuning

- ☐ Explain different storage structures, and why one storage structure may be preferred over another
- ☐ Explain the different types of indexes
- ☐ Explain Index Organized Tables
- ☐ Describe Materialized Views and the use of Query Rewrites

Using Oracle Blocks Efficiently

- ☐ Describe the correct usage of extents and Oracle blocks
- ☐ Explain space usage and the high water mark
- ☐ Describe the use of Oracle Block parameters
- ☐ Recover space from sparsely populated segments
- ☐ Describe and detect chaining and migration of Oracle blocks
- ☐ Perform Index Reorganization
- ☐ Monitor indexes to determine usage

SQL Statement Tuning

- ☐ Describe how the Optimizer is used
- ☐ Use of Stored Outlines
- ☐ Use SQL Trace and TKPROF
- ☐ Collect statistics on indexes and tables
- ☐ Copy statics between databases

Tuning the Operating System and Using Resource

- ☐ Set up Database Resource Manager
- ☐ Assign users to Resource Manager Groups

Test Content Checklist

Oracle9i: New Features for Administrators (Exam# 1Z0-030)

Oracle Server Security

- ☐ Explain the new privileged connection options
- ☐ Describe the new security features and their application:
  - Secure Application Role, Global Context, Partitioned Fine Grain Access Control, Fine Grained Auditing
- ☐ Describe the optional security products

General High Availability Technology

- ☐ Explain new features designed to harden the database against unplanned downtime
- ☐ Describe minimal I/O recovery
- ☐ Describe fast-start time-based recovery limit
- ☐ Explain the new Oracle Flashback feature
- ☐ Describe Resumable Space Allocation
- ☐ Describe the new Export/Import features

Oracle9*i* LogMiner Enhancements

- ☐ Explain LogMiner new features:
  - DDL statement support, dictionary staleness detection, ability to use an online dictionary, ability to skip log corruptions
- ☐ Describe the LogMiner Viewer

Backup and Recovery

- ☐ Describe new RMAN manageability features:
  - new backup enhancements, new restore/recovery enhancements
- ☐ Describe new RMAN reliability features:
  - Block media recovery (BMR), Trial Recovery
- ☐ Describe other RMAN improvements

Oracle9*i* Data Guard

- ☐ Explain the Oracle9*i* Data Guard Architecture
- ☐ Configure the physical Standby Database in no-data-loss mode
- ☐ Initiate a Database Switchover operation
- ☐ Setup automatic archive gaps detection
- ☐ Launch managed recovery mode in the background
- ☐ Apply a delay to redo application on the standby site

Database Resource Manager Enhancements

- ☐ Automatically detect long running operations
- ☐ Automatically limit resource consumption other than CPU and DOP

Online Operations

- ☐ Discuss new features designed to reduce planned downtime
- ☐ Explain online index rebuild new functionality
- ☐ Explain online functionality for index-organized tables (IOTs)
- ☐ Describe online table redefinitions
- ☐ Explain online analyze validate
- ☐ Describe the use of the Server Parameter File (SPFILE)

Segment Management (Part I)

- ☐ Use the automatic global index maintenance feature
- ☐ Explain the use of external tables
- ☐ Use the new LIST partitioning method
- ☐ Explain the basics of meta data Application Programming Interface

Segment Management (Part II)

- ☐ Explain and use the new Automatic Segment-Space Management functionality
- ☐ Create and use bitmap join indexes

Performance Improvements

- ☐ Use the indexes monitoring feature
- ☐ Describe skip scan index access
- ☐ Describe the cursor sharing enhancements
- ☐ Identify cached execution plans
- ☐ Use the new first rows optimization
- ☐ Gather system statistics

Exam #1Z0-030 Oracle9*i* Database: New Features for Administrators, continued

Real Application Clusters

- ☐ Explain cash fusion
- ☐ Configure a shared server-side itialization parameter file

File Management

- ☐ Explain the concept and benefits behind Oracle-Managed Files (OMF)
- ☐ Create and manage OMF files
- ☐ Use SQL syntax to remove associated OS files when removing a non-OMF tablespace from the database
- ☐ Create and alter default temporary tablespaces

Tablespace Management

- ☐ Explain the concept of Automatic Undo Management
- ☐ Create and maintain UNDO tablespaces
- ☐ Create and properly use multiple block sizes within a database

Memory Management

- ☐ Set parameters to enable automatic and dynamic sizing of SQL working areas
- ☐ Use new columns and views to gather information regarding SQL execution memory management
- ☐ Describe the allocation and tracking of memory behind a dynamic SGA

Enterprise Manager Enhancements

- ☐ Describe the new look and feel of the Console
- ☐ Use the Console in Standalone mode
- ☐ Explain Enterprise Manager functionality that supports Oracle9*i* Database features
- ☐ Generate HTML Reports
- ☐ Create User defined events

SQL Enhancements

- ☐ Use ISO/ANSI standard SQL syntax, such as: Joins, CASE expressions, NULLIF, COALESCE, scalar subqueries, MERGE, analytical functions
- ☐ Identify other SQL enhancements, such as: constraint enhancements, FOR UPDATE WAIT
- ☐ Use the enhancements to LOBs and PL/SQL

Globalization Support

- ☐ Describe the new date and time data types
- ☐ Describe the Unicode enhancements
- ☐ Describe the enhanced sorting functionality
- ☐ Use the Character Set Scanner
- ☐ Explain the new byte and character semantics
- ☐ Use the Locale Builder

Database Workspaces

- ☐ Identify the Workspace Manager role
- ☐ Version-enable a table
- ☐ Disable workspace participation for a table
- ☐ Create and assign a workspace
- ☐ Explain Import and Export considerations

Test Content Checklist

Oracle8i: New Features for Administrators (Exam# 1Z0-020)

Java in the Database

- ☐ Describe Oracle java components
- ☐ Describe JServer installation
- ☐ Tune JServer

Optimizer and Query Improvements

- ☐ Describe the features of optimizer plan stability
- ☐ Describe the contents of the DBMS_STATS Package
- ☐ Explain Top-N SQL queries
- ☐ Identify new SQL keywords for computing subtotals
- ☐ Identify new sort processing options
- ☐ Explain automatic parallel execution

Summary Management

- ☐ Build and Manage Materialized views for Oracle Summaries
- ☐ Build and Manage Dimensions

Indexes and Index-Organized Tables

- ☐ Describe bitmap indexes improvements
- ☐ Describe a function-based index
- ☐ Build an index online
- ☐ Compute index statistics
- ☐ Describe an index-organized table (IOT)
- ☐ Explain logical ROWIDs
- ☐ Create multiple indexes on an IOT
- ☐ Explain how to partition an IOT

Partitioning Improvements

- ☐ Revise the general partitioning concepts
- ☐ Implement range, hash, and composite partitioning
- ☐ Explain ENABLE/DISABLE ROW MOVEMENT
- ☐ Explain the new partition pruning capabilities
- ☐ Describe partition-wise join
- ☐ Review partition maintenance operations

Object Relational Features and LOBs

- ☐ Define LOBs from a DBA perspective

Oracle Universal Installer: Migration and Upgrade

- ☐ List the features of the Oracle Universal Installer
- ☐ Migrate an Oracle7 database to Oracle8*i*
- ☐ Upgrade an Oracle8 database to Oracle8*i*

Tablespace Management

- ☐ Manage locally managed tablespaces
- ☐ Manage transportable tablespaces
- ☐ Use read-only tablespace enhancements

Database Resource Manager

- ☐ List the features of the database resource manager
- ☐ Limit the use of resources using the database resource manager

Manageability Enhancements

- ☐ Identify database limits
- ☐ Relocate and reorganize tables
- ☐ Remove unused columns from a table
- ☐ Define temporary tables
- ☐ Identify SQL*Loader enhancements
- ☐ Monitor long-running operations
- ☐ Define new constraints features
- ☐ Define new Export/Import features

Availability and Recoverability Enhancements

- ☐ Learn RMAN new features
- ☐ Implement duplex and multiple archive logs
- ☐ Set up a standby database in sustained recovery mode
- ☐ Start up a database for read operations

Exam #1Z0-020 Oracle8*i*: New Features for Administrators, continued

- ☐ Suspend database I/Os
- ☐ Describe the functionality of LogMiner
- ☐ Implement fast-start fault recovery
- ☐ Manage corrupt block detection and repair
- ☐ Describe the new possibility of dynamically changing the number of free lists

Features of NET8

- ☐ Describe the new service naming scheme
- ☐ Explain automatic registration
- ☐ Describe load balancing
- ☐ Configure the network for JServer

SQL*Plus, PL/SQL, and National Language Support Enhancements

- ☐ Use SQL*Plus for database management
- ☐ Describe the use of PL/SQL for: Event Triggers, Autonomous Transactions, Native Dynamic SQL

Database Security

- ☐ Describe N-Tier authentication
- ☐ Describe invoker's rights security management
- ☐ Implement application context areas
- ☐ Implement fine-grained access control

Test Content Checklist

Oracle8: New Features for Administrators (Exam #1Z0-010)

Using Partitioning: Conceptual Overview

- ☐ Describe the benefits of partitioning
- ☐ Describe the general partitioning rules
- ☐ Describe the general partition restrictions

Implementing Partitioned Indexes

- ☐ Describe the different types of partitioned indexes
- ☐ Plan an indexing strategy to support your applications
- ☐ Describe general partition restrictions

Supporting Commands and Guidelines for Partitioned Tables and Indexes

- ☐ Explain the various commands to support partition management
- ☐ Describe restrictions that apply to certain operations
- ☐ Describe data dictionary tables that provide information on partitions

Parallelizing INSERT, UPDATE, and DELETE Operations

- ☐ Describe the advantages of parallel data manipulation language (DML)
- ☐ Use hints and the parallel clause to set the degree of parallelism for a DML statement
- ☐ Execute parallel UPDATE and DELETE operations on partitioned tables
- ☐ Use the data dictionary views associated with parallel DML operations

Identifying New ROWID Structure

- ☐ Describe the new ROWID format in Oracle8
- ☐ Use the new ROWID format in Oracle8
- ☐ Use the DBMS_ROWID package

Defining Object Relational Features

- ☐ Define an object relational database
- ☐ Describe the object concepts in Oracle8
- ☐ Create a basic object type
- ☐ Create and use an object view

Managing Large Objects

- ☐ Compare and contrast LONG and large object (LOB) data types
- ☐ Create and maintain LOB data types
- ☐ Differentiate between internal and external LOBs
- ☐ Utilize the DBMS_LOB PL/SQL package

Implementing Oracle Advanced Queuing

- ☐ Define the advanced queuing concepts
- ☐ Create and send messages using the ENQUEUE procedure
- ☐ Administer the queues and queue tables

Using Additional New Features

- ☐ Implement new types of constraint checking and enforcement
- ☐ Implement reverse key indexes
- ☐ Describe index-organized tables
- ☐ Create and use index-organized tables
- ☐ Identify the new security enhancements
- ☐ Configure a large pool System Global Area (SGA) area
- ☐ Take advantage of National Language Support (NLS) enhancements
- ☐ Use external procedures
- ☐ Describe the Oracle8 raised size ceilings

Exam #1Z0-010 Oracle8: New Features for Administrators, continued

Introduction to Recovery Manager

- ☐ Describe the Recovery Manager architecture
- ☐ Discuss the benefits of using Recovery Manager
- ☐ Identify the types of backups
- ☐ Describe the use of the Recovery Manager Catalog
- ☐ List associated data dictionary views

Using Catalog Commands and Reports in Recovery Manager

- ☐ Maintain the contents of the recovery catalog
- ☐ Generate reports and lists from the recovery catalog
- ☐ Create and execute scripts to perform backup and recovery operations

Using RUN Commands and Scripts in Recovery Manager

- ☐ Manage backup, copy, restore, and recovery operations using the Recovery Manager
- ☐ Create and execute scripts to perform backup and recovery operations

Enhancements to Networking

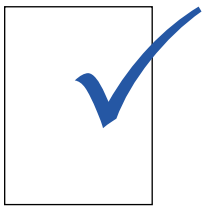
- ☐ Describe the concept of multiplexing
- ☐ Describe the concept of connection pooling
- ☐ Describe the new features of naming services
- ☐ Describe the connectivity features
- ☐ Describe the security features
- ☐ Describe the performance benefits
- ☐ Describe the possibilities of configuration and administration

Implementing Password Management

- ☐ Implement account locking
- ☐ Implement password aging and expiry
- ☐ Implement password complexity verification

Migrating Server and Applications

- ☐ Explain the Migration Utility
- ☐ Explain the steps to complete a migration to Oracle8
- ☐ Explain the migration options



Test Content Checklist

Oracle9i DBA Certified Master Practicum

Overall Practicum Objectives

- ☐ Configure an Oracle9*i* database environment by creating the logical and physical structures required to support optimal performance
- ☐ Configure an Oracle9*i* network environment to support a variety of connection scenarios
- ☐ Install, configure, and use Oracle database management, tuning, and diagnostic tools
- ☐ Use enhanced data management features of Oracle9*i* database to support advanced replication, partitioning, and parallel operations
- ☐ Use Oracle tools to backup data within an Oracle9*i* database environment while providing uninterrupted database availability
- ☐ Use Oracle tools to perform restore and complete recovery operations from any failure scenario
- ☐ Perform troubleshooting, analysis, and problem resolution to enhance database and instance performance

Practicum Areas of Focus and Objectives

Database Configuration

- ☐ Determine and set sizing parameters for database segments
- ☐ Create and manage temporary, permanent and undo tablespaces
- ☐ Stripe data files across multiple physical devices and locations
- ☐ Configure the database environment to support optimal data access performance
- ☐ Protect the database from loss of data from any failure scenario
- ☐ Create and manage database configuration files

Oracle Network Configuration

- ☐ Create and manage multiple network configuration files
- ☐ Configure the database instance to support shared server connections
- ☐ Setup network tracing
- ☐ Configure the network environment to efficiently manage user connections
- ☐ Manage Oracle network processes.
- ☐ Configure the network environment to allow connections to multiple databases

Oracle Enterprise Manager

- ☐ Install and configure Oracle Enterprise Manager
- ☐ Install and configure the OEM Tuning Pack
- ☐ Install and configure the OEM Diagnostics Pack
- ☐ Use OEM to modify a database configuration
- ☐ Configure OEM to manage database availability
- ☐ Perform database administration operations using OEM

Database Availability

- ☐ Create a recovery catalog using Recovery Manager
- ☐ Use Recovery Manager to perform database backups
- ☐ Use Recovery Manager to perform a complete database restore and recovery
- ☐ Configure the TNSNAMES.ORA file to support remote connections to a catalog database using TCP
- ☐ Perform a complete recovery from any failure scenario

Oracle9i DBA Certified Master Practicum, continued

Data Management

- ☐ Create and manage tablespaces to support database access activities.
- ☐ Manage partitioning within a database environment.
- ☐ Configure auditing within the database.
- ☐ Provide users with access to data.
- ☐ Provide access to data using flashback.

Database Management

- ☐ Implement fine-grained security.
- ☐ Generate table, index, column, and system statistics.
- ☐ Manage the SGA.
- ☐ Manage new users.
- ☐ Implement Replication.

Performance Management

- ☐ Collect instance and database statistics using STATSPACK, UTLBSTAT/UTLESTAT, and OEM Packs.
- ☐ Analyze statistics and modify parameters to enhance performance.
- ☐ Configure Resource Manager and use it to manage queries.
- ☐ Create and manage objects to accommodate different data access methods.
- ☐ Analyze and tune query performance.
- ☐ Use events to collect performance information.

Standby Databases and Data Guard

- ☐ Create and utilize a standby database.
- ☐ Add data to the primary database in preparation for transfer to a standby database.
- ☐ Setup the standby database to use the log writer process to transfer the log stream to the standby database.
- ☐ Configure the network environment to allow communication between the standby database and the primary database.
- ☐ Open the standby database in a "Read-Only" state.

Regional Service Centers

Sydney, Australia Regional Service Center (direct dial#)	**+612.9414.3663**
Lelystad, Netherlands Regional Service Center (direct dial#)	**+31.320.23.9894**
Tokyo, Japan Regional Service Center (direct dial#)	**+ 813.3269.9620**
Latin America Regional Service Center (direct dial#)	**+1.410.843.4300**
North America Regional Service Center (toll-free#)	**+1.800.891.3626**

Prometric Regional Service Centers

How to Use This Table

1. Locate your country on the table.

2. Call the Prometric Regional Service Center (RSC) listed for your country. The RSC numbers are shown in the box above. If there is a toll-free number to the Regional Service Center for your country, it will be shown in the table below. For a list of testing sites in your country, please refer to http://www.prometric.com, Test Center Locator.

COUNTRY	RSC	TOLL-FREE #
Algeria	Lelystad	
Argentina	Latin America	
Australia	Australia	1.800.806.944
Austria	Lelystad	0660.8582
Bahamas	Latin America	
Bangladesh	Australia	
Barbados	Latin America	
Belgium	Lelystad	0800.1.7414
Bermuda	Latin America	
Bolivia	Latin America	
Botswana	Lelystad	
Brazil	Latin America	000.817.965.5340
Brunei	Australia	
Bulgaria	Lelystad	
Cameroon	Lelystad	
Canada	North America	
Cayman Islands	Latin America	
Chile	Latin America	
China	Australia	1.0800.610.0036
Colombia	Latin America	980.13.0932
Costa Rica	Latin America	
Croatia	Lelystad	
Curacao, NA	Latin America	
Cyprus	Lelystad	
Czech Republic	Lelystad	
Denmark	Lelystad	
Dominican Republic	Latin America	
Ecuador	Latin America	
Egypt	Lelystad	
Estonia	Lelystad	
Fiji	Australia	
Finland	Lelystad	
France	Lelystad	01.428.93.122
Gabon	Lelystad	
Bahrain	Lelystad	
Georgian Republic	Lelystad	
Germany	Lelystad	0130.83.97.08
Ghana	Lelystad	
Great Britain	Lelystad	08.00.592.873
Greece	Lelystad	
Guam	Australia	1888.249.6392
Guatemala	Latin America	
Honduras	Latin America	
Hong Kong	Australia	800.96.8444
Hungary	Lelystad	
Iceland	Lelystad	
India	Australia	
Indonesia	Australia	001.803.61608
Ireland	Lelystad	1.800.626.104
Israel	Lelystad	
Italy	Lelystad	1.6787.8441
Ivory Coast	Lelystad	
Jamaica	Latin America	1.800.892.1978
Japan	Tokyo	0120.387737
Jordan	Lelystad	
Kazakhstan	Lelystad	
Kenya	Lelystad	
Kuwait	Lelystad	

COUNTRY	RSC	TOLL-FREE #
Latvia	Lelystad	
Lebanon	Lelystad	
Lithuania	Lelystad	
Luxembourg	Lelystad	
Macau	Australia	
Macedonia	Lelystad	
Malaysia	Australia	1800.80.0508
Malta	Lelystad	
Martinique	Lelystad	
Mauritius	Lelystad	
Mexico	Latin America	95.800.332.1034
Morocco	Lelystad	
Namibia	Lelystad	
Nepal	Australia	
Netherlands	Lelystad	0800.022.7584
New Caledonia	Australia	
New Zealand	Australia	0800.44.1689
Nigeria	Lelystad	
Norway	Lelystad	
Oman	Lelystad	
Pakistan	Australia	
Panama	Latin America	
Papua New Guinea	Australia	
Paraguay	Latin America	
Peru	Latin America	
Philippines	Australia	1.800.1.611.0126
Poland	Lelystad	
Portugal	Lelystad	
Puerto Rico	Latin America	
Reunion Island	Lelystad	
Romania	Lelystad	
Russia	Lelystad	
Saudi Arabia	Lelystad	
Senegal	Lelystad	
Singapore	Australia	800.616.1132
Slovakia	Lelystad	
Slovenia	Lelystad	
South Africa	Lelystad	
South Korea	Australia	007.8611.3095
Spain	Lelystad	
Sri Lanka	Australia	
Suriname	Latin America	
Sweden	Lelystad	
Switzerland	Lelystad	0800.55.69.66
Taiwan	Australia	008.061.1141
Tanzania	Lelystad	
Thailand	Australia	01.800.611.2401
Trinidad & Tobago	Latin America	
Tunisia	Lelystad	
Turkey	Lelystad	
Ukraine	Lelystad	
United Arab Emirates	Lelystad	
United States	North America	1.800.891.3926
Uruguay	Latin America	
Venezuela	Latin America	
Vietnam	Australia	612.9414.3666
Yugoslavia	Lelystad	
Zimbabwe	Lelystad	

V.11.02

Oracle Corporation World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065 USA
Worldwide Inquiries:
+1.650.506.7000
+1.650.506.7200 (Fax)
http://www.oracle.com
http://www.oracle.com/education/
http://www.oracle.com/education/certification/
Oracle Certification Program Inquiries:
Contact your local Oracle University Representative from
http://www.oracle.com/education/contact_info.html
US telephone Inquiries:
1.800.633.0575

Oracle Corporation is the world's leading supplier of software for information management, and the world's second largest independent software company. The company offers its database, tools, and application products, along with related consulting, education, and support services, in more than 145 countries around the world.