



1Z0-027

Oracle Exadata X3 and X4 Administration
Exam Summary – Syllabus – Questions



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Introduction to 1Z0-027 Exam on Oracle Exadata X3 and X4 Administration

You can use this exam guide to collect all the information about Oracle Exadata X3 and X4 Administration (1Z0-027) certification. The Oracle 1Z0-027 certification is mainly targeted to those candidates who has some experience or exposure of Exadata and want to flourish their career with Oracle Certified Expert Oracle Exadata X3 and X4 Administrator (OCE) credential. The Oracle Exadata X3 and X4 Administration certification exam validates your understanding of the Exadata technology and sets the stage for your future progression. Your preparation plan for Oracle 1Z0-027 Certification exam should include hands-on practice or on-the-job experience performing the tasks described in following Certification Exam Topics table.

Oracle 1Z0-027 Certification Details:

Exam Name	Oracle Exadata X3 and X4 Administration
Exam Code	1Z0-027
Exam Product Version	Exadata
Exam Price	USD \$245 (Pricing may vary by country or by localized currency)
Duration	150 minutes
Number of Questions	90
Passing Score	60%
Validated Against	This exam has been validated against Oracle Database 11g, Oracle Database 12c, Exadata Database Machine X3 and X4, and cell images 11.2.3.2.0, 11.2.3.3.0 and 12.1.1.1.0.
Format	Multiple Choice
Recommended Training	Exadata Database Machine Administration Workshop
Schedule Exam	Pearson VUE - Oracle
Recommended Practice	1Z0-027 Online Practice Exam

Oracle 1Z0-027 Exam Syllabus:

Exadata Database Machine Overview	<ul style="list-style-type: none"> - Identify the benefits of using Database Machine for different application classes - Describe the integration of the Database Machine with Oracle Database Clusterware and ASM - Describe Exadata Storage Server and the different Database Machine configurations - Describe the key capacity and performance specifications for Database Machine - Describe the key benefits associated with Database Machine
Exadata Database Machine Architecture	<ul style="list-style-type: none"> - Describe the Database Machine network architecture - Describe the Database Machine software architecture - Describe the Exadata Storage Server storage entities and their relationships - Describe how multiple Database Machines can be interconnected - Describe site planning requirements for Database Machine - Describe network requirements for Database Machine
Key Capabilities of Exadata Database Machine	<ul style="list-style-type: none"> - Describe the key capabilities of Exadata Database Machine - Describe the Exadata Smart Scan capabilities - Describe the capabilities of hybrid columnar compression - Describe the capabilities and uses of the Smart Flash Cache - Describe the capabilities of the Smart Flash Log - Describe the purpose and benefits of Storage Indexes - Describe the capabilities and uses of Exadata Secure Erase
Exadata Database Machine Initial Configuration	<ul style="list-style-type: none"> - Describe the installation and configuration process for Database Machine - Describe the default configuration for Database Machine - Describe supported and unsupported customizations for Database Machine - Describe database machine operating system options and configurations
Configure Exadata Storage Server	<ul style="list-style-type: none"> - Configure Exadata software - Create and configure ASM disk groups using Exadata - Use the CellCLI Exadata administration tool - Describe Exadata Storage Server security
I/O Resource Management	<ul style="list-style-type: none"> - Use Exadata Storage Server I/O Resource Management to manage workloads within a database and across multiple databases - Configure database resource management plans - Configure category plans - Configure inter-database plans - Describe and configure the I/O resource manager objectives - Monitor I/O using I/O Metrics

<p>Recommendations for Optimizing Database Performance</p>	<ul style="list-style-type: none"> - Optimize database performance in conjunction with Exadata Database Machine - Monitor and configure table indexes, accounting for the presence of Exadata
<p>Using Smart Scan</p>	<ul style="list-style-type: none"> - Describe Smart Scan and the query processing that can be offloaded to Exadata Storage Server - Describe the requirements for Smart Scan - Describe the circumstances that prevent using Smart Scan - Identify Smart Scan in SQL execution plan - Use database statistics and wait events to confirm how queries are processed
<p>Consolidation Options and Recommendations</p>	<ul style="list-style-type: none"> - Describe the options for consolidating multiple databases on Database Machine - Describe the benefits and costs associated with different options - Identify the most appropriate approach for consolidation in different circumstances
<p>Migrating Databases to Exadata Database Machine</p>	<ul style="list-style-type: none"> - Describe the steps to migrate your database to Database Machine - Explain the main approaches for migrating your database to Database Machine - Identify the most appropriate approach for migration in different circumstances - Identify the most appropriate storage configuration for different circumstances
<p>Bulk Data Loading using Oracle DBFS</p>	<ul style="list-style-type: none"> - Use Oracle DBFS for bulk data loading into Database Machine - Configure the Database File System (DBFS) feature for staging input data files - Use external tables based on input data files stored in DBFS to perform high-performance data loads
<p>Exadata Database Machine Platform Monitoring</p>	<ul style="list-style-type: none"> - Describe the purpose and uses of SNMP for the Database Machine - Describe the purpose and uses of IPMI for the Database Machine - Describe the purpose and uses of ILOM for the Database Machine
<p>Configuring Enterprise Manager Grid Control 11g to Monitor Exadata Database Machine</p>	<ul style="list-style-type: none"> - Describe the Enterprise Manager Grid Control architecture as it specifically applies to Exadata Database Machine - Describe the placement of agents, plug-ins and targets - Describe the recommended configuration for high availability - Describe the plug-ins associated with Exadata Database Machine and how they are configured - Configure a dashboard for Exadata Database Machine

Monitoring Exadata Storage Servers	<ul style="list-style-type: none"> - Describe Exadata Storage Server metrics, alerts and active requests - Identify the recommended focus areas for Exadata Storage Server monitoring - Monitor the recommended Exadata Storage Server focus areas
Monitoring Exadata Database Machine Database Servers	<ul style="list-style-type: none"> - Describe the monitoring recommendations for Exadata Database Machine database servers
Monitoring the InfiniBand Network	<ul style="list-style-type: none"> - Monitor InfiniBand switches - Monitor InfiniBand switch ports - Monitor InfiniBand ports on the database servers - Monitor the InfiniBand subnet master location - Monitor the InfiniBand network topology
Monitoring other Exadata Database Machine Components	<ul style="list-style-type: none"> - Monitor Exadata Database Machine components: Cisco Catalyst Ethernet Switch, Sun Power Distribution Units, Avocent MergePoint Unity KVM Switch
Monitoring Tools	<ul style="list-style-type: none"> - Use monitoring tools: Exachk, DiagTools, ADRCI, Imageinfo and Imagehistory, OSWatcher
Backup and Recovery	<ul style="list-style-type: none"> - Describe how RMAN backups are optimized using Exadata Storage Server - Describe the recommended approaches for disk-based and tape-based backups of databases on Database Machine - Describe the recommended best practices for backup and recovery on Database Machine - Perform backup and recovery - Connect a media server to the Database Machine InfiniBand network
Database Machine Maintenance tasks	<ul style="list-style-type: none"> - Power Database Machine on and off - Safely shut down a single Exadata Storage Server - Replace a damaged physical disk on a cell - Replace a damaged flash card on a cell - Move all disks from one cell to another - Use the Exadata cell software rescue procedure
Patching Exadata Database Machine	<ul style="list-style-type: none"> - Describe how software is maintained on different Database Machine components - Locate recommended patches for Database Machine - Describe the recommended patching process for Database Machine - Describe the characteristics of an effective test system
Database Machine Automated Support Ecosystem	<ul style="list-style-type: none"> - Describe the Auto Service Request (ASR) function and how it relates to Exadata Database Machine - Describe the implementation requirements for ASR - Describe the ASR configuration process - Describe Oracle Configuration Manager (OCM) and how it relates to Exadata Database Machine

1Z0-027 Sample Questions:

01. Identify the three components that serve a purpose only in the Database Machine.

- a) ASM intelligent Data Placement (IDP)
- b) Database Filesystem (DBFS)
- c) Database Resource Manager (DBRM)
- d) I/O Resource Manager (IORM)
- e) The DISKMON process
- f) Intelligent Database Protocol (IDB)

02. Identify two valid reasons for creating multiple griddisks on a Single cell disk.

- a) To segregate storage into multiple pools with different performance characteristics
- b) To facilitate normal or high redundancy ASM diskgroups
- c) To enable disk mirroring for the system area
- d) To segregate storage into multiple pools that can be assigned to different resource consumer groups in the same database.
- e) To segregate storage into multiple pools that can be assigned to different databases

03. What is the benefit of bonding the client access network configuration?

- a) Improved performance
- b) Both improved performance and reliability
- c) Improved monitoring
- d) A Single Client Access Name (SCAN)
- e) Improved reliability

04. Which four statements are true about Exadata Smart Flash Cache?

- a) Smart Flash Logs reduce the size of Smart Flash Cache.
- b) Single block reads can benefit from Smart Flash Cache.
- c) Multiblock reads can benefit from Smart Flash Cache.
- d) Flash based ASM diskgroups may share space with the Flash Cache on the flashdisks.
- e) Smart Scan will never be done for I/Os to flash based griddisks.
- f) Smart Scan will always be done for I/Os to flash based griddisks.

05. Which three are true regarding the use of Storage Indexes?

- a) The use of Storage indexes for a particular database can be disabled by using an I/O Resource Manager Database Plan.
- b) A maximum of eight table columns for any table are Indexed per storage region.
- c) Storage Indexes occupy space in the Smart Flash Cache.
- d) A Storage index is automatically maintained by CELLSRV based on the filter columns of the offload SQL.
- e) The use of Storage Indexes for particular categories of I/O can be disabled by using an I/O Resource Manager Category Plan.
- f) Different storage regions may have different columns indexed for the same table.

06. Which three storage components are available after the standard initial Database machine deployment?

- a) The DATA_<DBM_Name> ASM diskgroup
- b) Exadata Smart Flash Cache using all of the flashdisk space
- c) The DBFS_DG diskgroup with external redundancy

- d) Mirrored system partitions on hard disk 0 and hard disk 1
- e) The DATA_<DBM_Name> ASM diskgroup

07. Which type of network traffic is transported over the internal InfiniBand network in a Database Machine?

- a) RAC database instance traffic only
- b) IDB protocol traffic, Clustered ASM traffic, and RAC database instance traffic
- c) Clustered ASM Instance traffic only
- d) IDB protocol traffic only
- e) Both Clustered ASM and RAC database instance traffic

08. You are using Hybrid Columnar Compression for a table stored in a tablespace that is contained in an Exadata-based ASM diskgroup. Identify three statements that correctly explain where the compression and decompression can be done.

- a) Decompression can be done on the database servers..
- b) Compression can be done on the Exadata storage servers.
- c) Compression can be done on the database servers.
- d) Decompression can be done on the Exadata storage servers.

09. You installed ASR Manager on a stand-alone server and configured Auto Service Request (ASR) for your Database machine and its assets. Which three statements are true about this configuration?

- a) Simple network Management Protocol (SNMP) traps are used to send notification from Enterprise manager to ASR Manager.
- b) Simple Network Management Protocol (SNMP) traps are used to send notifications from storage servers to ASR Manager.
- c) When a component fault occurs, fault telemetry is securely transmitted to Oracle via HTTPS.
- d) Simple Network Management Protocol (SNMP) traps are used to send notifications from database servers to ASR Manager.
- e) When a component fault occurs, fault telemetry is securely transmitted to Oracle via Simple Network Management Protocol (SNMP).
- f) Simple Network Management Protocol (SNMP) traps received by ASR Manager are forwarded to Enterprise Manager.

10. Your database Machine has the exachk utility pre-installed and you decide to use it periodically, to validate the installation against Oracle's recommended best practices. Which two actions could you take to do this?

- a) Use a cron job on each cell to run it at regular intervals.
- b) Create a Job in Enterprise Manager to run the exachk utility at regular intervals.
- c) Use a cron job on a database node to run it at regular intervals.
- d) Run it once from a database node and it will then perform periodic monitoring automatically.
- e) Run it once on each cell and it will then perform periodic monitoring automatically.

Answers to 1Z0-027 Exam Questions:

QUESTION: 01 Answer: d, e, f	QUESTION: 02 Answer: a, e	QUESTION: 03 Answer: b	QUESTION: 04 Answer: a, b, c, d	QUESTION: 05 Answer: b, d, f
QUESTION: 06 Answer: a, d, e	QUESTION: 07 Answer: b	QUESTION: 08 Answer: c, d	QUESTION: 09 Answer: b, c, d	QUESTION: 10 Answer: b, c

Note: If you find any typo or data entry error in these sample questions, we request you to update us by commenting on this page or write an email on feedback@oraclestudy.com