

# **Oracle**

Exam 1z0-593

# **Oracle Real Application Clusters 11g Essentials**

Version: 6.2

[Total Questions: 79]

#### **Question No: 1**

Once OUI recognizes a set of nodes in a cluster, which three choices does it offer when installing the Oracle Database 11g Release 2 software?

- A. You can only install the Oracle Database with the RAC option on selected nodes.
- **B.** OUI forces you to configure ASM for shared storage before proceeding.
- **C.** You can install the Oracle Database as a single instance or with the RAC option on all the nodes.
- **D.** You can install the Oracle Database as a single instance or with the RAC option on selected nodes.
- E. You can install Oracle RAC One Node.

# Answer: B,D,E

**Explanation:** B, D: Complete the prerequisite tasks for converting to an Oracle RAC database:

Oracle Clusterware and Oracle Database software is installed on all target nodes.

Oracle Clusterware is started.

- (D) The Oracle Database binary is enabled for Oracle RAC on all target nodes.
- (B) Shared storage is configured and accessible from all nodes.

User equivalency is configured for the operating system user performing the conversion.

Enterprise Manager agents are configured and running on all nodes, and are configured with the cluster and host information.

The database being converted has been backed up successfully.

E: Installing Oracle RAC One Node is available starting with Oracle Database 11g Release 2 (11.2.0.2).

#### Note:

\* By default, the standard Oracle Database 11g software installation process installs the Oracle RAC option when OUI recognizes that you are performing the installation on a cluster.

In the following line, which is the result of a "crsctl query css votedisk" command (which is missing the column headers in the output) – what does the [DATA] indicate?

- 1. ONLINE 62a46a99b0434f8abf16f338c85203160 (/dev/xvdc1) [DATA]
- A. It Indicates that the Voting Disk contains Oracle Cluster ware data
- B. It Indicates that the Voting Disk is managed in the ASM diskgroup "DATA"
- C. It Indicates that the Voting Disk "DATA" is online on disk /dev/xvdc1
- D. It indicates that the ASM diskgroup "DATA" stores only the Voting Disk

#### **Answer: B**

**Explanation:** See example below.

#### Note:

\* Use the crsctl query css votedisk command to display the voting disks used by Cluster Synchronization Services, the status of the voting disks, and the location of the disks, whether they are stored on Oracle ASM or elsewhere.

# \* Example:

The crsctl query css votedisk command returns output similar to the following:

\$ crsctl query css votedisk ## STATE File Universal Id File Name Disk group

-- ----- -------

- 1. ONLINE 296641fd201f4f3fbf3452156d3b5881 (/ocfs2/host09\_vd3) []
- 2. ONLINE 8c4a552bdd9a4fd9bf93e444223146f2 (/netapp/ocrvf/newvd) []
- 3. ONLINE 8afeee6ae3ed4fe6bfbb556996ca4da5 (/ocfs2/host09\_vd1) [] Located 3 voting disk(s).

Reference: Oracle Clusterware Administration and Deployment Guide, CRSCTL Utility Reference

#### **Question No: 3**

Which three items can be stored on the ACFS (Oracle ASM Cluster File System)?

- **A.** Oracle Database Homes (shared home approach)
- B. Any type of application-related configuration or log files
- C. The Oracle Grid Infrastructure Home
- **D.** Oracle Backup Sets (RMAN backup sets)

# Answer: A,B,D

**Explanation:** Oracle ASM Cluster File System (ACFS) is a general purpose cluster file system implemented as part of ASM. It can be used to store almost anything, including the database executables. The only things that should not be stored in ACFS are the Grid Infrastructure home and any Oracle files that can be directly stored in Oracle ASM.

Reference: Oracle ASM Cluster File Systems (ACFS) in Oracle Database 11g Release 2

#### **Question No: 4**

When installing the Oracle Database with OUI, when are configuration scripts executed?

- **A.** Before installation begins
- **B.** After prerequisites check finished
- C. After the software has been installed
- **D.** Automatically throughout the installation process

# **Answer: C**

**Explanation:** If prompted, execute the root.sh script as the root user to complete the installation, and click OK.

# Note:

\* Oracle Universal Installer (OUI)

Reference: Oracle Database Client Installation Guide

#### **Question No: 5**

You want to stop a CRSCTL command that is active. How should you do this?

- **A.** With the abort command
- B. With CTRL-C
- C. With CTRL-X
- D. With CTRL-A
- E. With CTRL-ALT-DEL

#### **Answer: B**

**Explanation:** Stopping Active SRVCTL CommandsAlthough you may be able to cancel running SRVCTL commands by pressing the Control-C keys, you may corrupt your configuration data by doing this. You are strongly advised not to attempt to terminate SRVCTL in this manner.

#### **Question No: 6**

You want to install Grid Infrastructure for a cluster and the Oracle Database software (with the RAC option). Do you need SSH user equivalency?

- **A.** Yes, to ensure security during the installation.
- **B.** Yes, to set up administrative privileges for the DBA.
- **C.** Yes, to allow the use of SSH and SCP without being prompted for a pass phrase.
- **D.** No, you don't need SSH user equivalency.

# **Answer: C**

**Explanation:** During the installation of Oracle RAC, OUI needs to copy files to and execute programs on the other nodes in the cluster. In order to allow OUI to do that, you must configure SSH to allow user equivalence. Establishing user equivalence with SSH provides a secure means of copying files and executing programs on other nodes in the cluster without requiring password prompts.

Which two statements about the SRVCTL utility are correct?

- **A.** SRVCTL must be run from the RAC database ORACLE\_HOME/bin directory when used to manage that dababase.
- **B.** The SRVCTL command cannot be used to manage Oracle Grid Infrastructure.
- **C.** Every command requires an object on which to operate.
- **D.** A comma-delimited list should be enclosed in single quotes.

# Answer: A,C

**Explanation:** A: Always use SRVCTL from the Oracle\_home of the database that you are administering.

C: SRVCTL expects the following command syntax:

srvctl command object options

#### Incorrect:

Not B: Guidelines for Using SRVCTL in Oracle Real Application Clusters Not D: On the Windows platform, when specifying a comma-delimited list, you must enclose the list within double-quotes ("...,...").

#### Question No: 8

How do you enable automatic backup of the OCR?

- **A.** With the ocrconfig autobackup command
- **B.** With the ocrconfig -backup command
- C. With the ocrconfig -backuploc command
- **D.** You don't have to enable this, Oracle Clusterware does it automatically

#### **Answer: D**

**Explanation:** Automatic backup of OCR is done by CRSD process and every 3 hours.

#### **Question No:9**

What does the Oracle Validated Configuration RPM do?

- **A.** Configures parameters and adds new packages, where necessary
- B. Validates hardware configuration for RAC
- C. Performs cluster integrity checks
- **D.** Installs pre-validated Oracle Database and Grid Infrastructure software

#### **Answer: D**

**Explanation:** The Oracle-Validated rpm automatize the install of the numerous components required to setup OCW and RAC on Linux, and execute most of the required OS configuration steps.

#### **Question No: 10**

List the syntax supported by the Cluster Verification Utility (CVU). (select all that apply)

- **A.** comp To show valid components with description
- B. stage To list pre and post checks of stages
- C. asm To list valid disks available
- D. dbstat To list number of instances available online

#### Answer: A,B

**Explanation:** A: To verify the minimal system requirements on the nodes prior to installing Oracle Clusterware or Oracle RAC, use the sys component verification command as follows:

```
cluvfy comp sys [ -n node_list ] -p { crs | database } } [-r { 10gR1 | 10gR2 | 11gR1} ] [ -osdba osdba_group ] [ -orainv orainventory_group ] [-verbose]
```

B: To verify whether your system meets all of the criteria for an Oracle Clusterware installation, use the -pre crsinst command for the Oracle Clusterware installation stage as follows:

```
cluvfy stage -pre crsinst -n node_list
[ -c ocr_location ] [-r { 10gR1 | 10gR2 | 11gR1} ][ -q voting_disk ]
[ -osdba osdba_group ]
[ -orainv orainventory_group ] [-verbose]
```

Which is not a node app?

- A. ASM
- B. ONS
- C. GSD
- **D.** VIP

# **Answer: A**

# **Explanation:**

Note:

OptionDescription

-n node name

Node name.

-o clusterware\_home

Oracle Clusterware home for node applications such as VIP, ONS, and GSD.

-A new\_vip\_address

The node level VIP address (name|ip/netmask[/if1[|if2|...]]).

OptionDescription

-n node name

Node name.

-a

Displays the VIP address configuration.

-g

Displays the GSD configuration.

-s

Displays the ONS configuration.

-1

Displays the listener configuration.

<sup>\*</sup> srvctl modify nodeapps Options

<sup>\*</sup> srvctl config nodeapps Option

Reference: Oracle Real Application Clusters Administration and Deployment Guide, A Server Control Utility Reference

#### **Question No: 12**

You are creating a RAC database with DBCA. Which of these is NOT a main area of initialization parameters you can configure as part of the process?

- **A.** Memory
- B. page size
- C. Character set
- D. Connection mode

#### **Answer: B**

**Explanation:** The Initialization Parameters page appears. By default, the Initialization Parameters page shows only the basic parameters, and only enables you to change the parameter file definition if you are using raw storage. Each tab on the Initialization Parameters page provides different sets of information that you can add or modify as follows:

- a. Memory Tab.

Reference: Oracle Database Oracle Clusterware and Oracle Real Application Clusters Installation Guide 10g Release 2 (10.2) for Microsoft Window, Creating an Oracle Real Application Clusters Database with DBCA

**Question No: 13** 

Which tool can be used to specify network interfaces and to retrieve component configuration information?

- A. CVU
- B. SRVCTL
- C. CRSCTL
- D. OIFCFG

#### **Answer: D**

**Explanation:** The Oracle Interface Configuration (OIFCFG) command-line interface helps you to define and administer network interfaces. You can issue OIFCFG commands in single-instance and Oracle Clusterware environments to:

Allocate and deallocate network interfaces to components
Direct components to use specific network interfaces
Retrieve component configuration information

Reference: Oracle Interface Configuration (OIFCFG) Command Reference

#### Question No: 14

You want to set full debugging for the communications and resource management components for the CRS module on nodes host01 and host03. How can you accomplish this?

- A. crsctl set log CRS "CRSCTL: 5, CRSCOMM: 5" –nodelist host01, host03
- **B.** crsctl Ismodules crs set log CRSCTL: 5, CRSCOMM: 5 –nodelist host01, host03
- C. srvctl set log -m CRSCTL5, CRSCOMM 5 -n host01, host03
- **D.** ocrconfig set log CRS "CRSCTL, CRSCOMM: 5" –nodelist host 01, host03

#### **Answer: A**

**Explanation:** To set log levels for the CRSRTI and CRSCOMM components of the CRS module:

\$ crsctl set log crs "CRSRTI=1,CRSCOMM=2"

Reference: Oracle Clusterware Administration and Deployment Guide, CRSCTL Utility Reference

### **Question No: 15**

What would be the total space required for Clusterware files when stopping them in the ASM Diskgroup configured with NORMAL redundancy? (Assume each OCR and voting Disk files uses 300 MB.)

**A.** 1.5 GB

**B.** 2.4 GB

**C.** 600 MB

**D.** 900 MB

#### **Answer: A**

**Explanation:** When you use normal redundancy, Oracle Clusterware automatically maintains two copies of the OCR file and three copies of the voting disk file.

Reference: About Oracle Clusterware

#### **Question No: 16**

Which OCRCONFIG command backs up the OCR to the -backuploc location?

A. -overwrite

B. -backuploc pathname

C. -manualbackup

**D.** –export

#### **Answer: C**

Explanation: ocrconfig -manualbackup

Use the ocrconfig -manualbackup command to back up OCR on demand in the location you specify with the -backuploc option.

Incorrect:

Not C: This command just defines the backuploc location. ocrconfig -backuploc

Use the ocrconfig -backuploc command to specify an OCR backup directory location.

**Syntax** 

ocrconfig [-local] -backuploc file\_name

Example

To specify an OCR backup location in a directory:

# ocrconfig -backuploc \$Grid\_home/cdata/cluster3

Reference: Oracle Cluster Registry Utility Reference

#### **Question No: 17**

Which two statements about the Single Client Access Name (SCAN) feature are correct?

- A. In typical Grid Infrastructure Installation, the SCAN name defaults to the cluster name
- B. A SCAN listener runs on every cluster node
- C. SCAN is available with any version of Oracle 11g RAC
- **D.** SCAN provides location Independence of Oracle RAC databases in the cluster

#### Answer: A,B

**Explanation:** SCAN components in a cluster:

- # SCAN Name
- # SCAN Listener

SCAN Name will represent the cluster in the network. SCAN Name needs to be registered in DNS and resolved using round-robin algorithm. To test the round-robin algorithm, perform nslookup on the SCAN Name. The DNS server should return those 3 set of IP Address in different order each time

Incorrect:

Not C: Only from R2:

Prior to Oracle 11g R1 RAC, client connection to RAC Cluster will use each node VIP (virtual IP) address. So each time a node is added to the cluster, the client tnsnames.ora file needs to be updated with the new VIP addition.

Oracle 11g R2 RAC introduces SCAN (Single Client Access Name) to handle that problem. SCAN provides single name from clients to access the database running in the cluster.

How many Oracle Clusterware interconnect networks are required and why?

- A. Only one; minimum requirement
- **B.** Two; redundancy is required
- C. One per node in the cluster
- **D.** One per database in the cluster

#### **Answer: C**

**Explanation:** Oracle Clusterware requires a cluster interconnect configured for inter-node communication.

#### Note:

- \* The Oracle Clusterware interconnect is a non-traditional interconnect and should be considered, in shared global cache applications, such as Oracle RAC, to be an I/O subsystem for inter-node global cache buffer transfers with the latency and bandwidth requirements of high performance cluster computing.
- \* The interconnect network is a private network using a switch (or multiple switches) that only the nodes in the cluster can access.

#### And

Oracle Clusterware requires that you connect the nodes in the cluster to a private network by way

of a private interconnect. The private interconnect is a separate network that you configure between cluster nodes. The interconnect used by Oracle RAC is the same interconnect that Oracle Clusterware uses. This interconnect should be a private interconnect, meaning it is not accessible to nodes that are not members of the cluster.

Reference: Oracle Real Application Clusters (RAC) and Oracle Clusterware Interconnect Virtual Local Area Networks (VLANs) Deployment Considerations

**Question No: 19** 

Which command line tool can be used for working with the Oracle cluster Registry?

- A. SRVCTL
- **B.** OCRCFG
- C. OCRCONFIG
- D. CRSCTL
- E. OEM
- F. OUI

# **Answer: C**

Reference: Oracle Cluster Registry Utility Reference

#### **Question No: 20**

How do you modify Kernel Parameters to meet the minimum requirements for Oracle RAC? (Select all that Apply)

- **A.** Pre-Oracle RAC 11g Release 2 manually changing the kernel Parameters is required to meet Oracle RAC minimum requirements.
- **B.** With Oracle Grid Infrastructure / Oracle RAC 11g Release 2 fixup-scripts (CVU generated) can be used to set the appropriate kernel Parameters.
- **C.** The Oracle Enterprise Manager can be used to modify kernel Parameters before the Installation of the Oracle RAC stack.
- **D.** You do not need to change any Kernel Parameters for an Oracle RAC installation.

#### Answer: A,B

Explanation: A: In Pre-Oracle RAC 11g Release 2 we did manually changed the kernel Parameters to meet Oracle RAC minimum requirements

B: With Oracle Clusterware 11g release 2, Oracle Universal Installer (OUI) detects when the minimum requirements for an installation are not met, and creates shell scripts, called fixup scripts, to finish incomplete system configuration steps. If OUI detects an incomplete task, then it generates fixup scripts (runfixup.sh). You can run the fixup script after you click the Fix and Check Again Button.

You also can have CVU generate fixup scripts before installation.

Reference: Installation Fixup Scripts

Which action is not available when right-clicking a ADVM volume in the ASM Configuration Assistant?

- A. Enable
- B. Disable
- C. Version
- D. Resize
- E. Delete

# **Answer: C**

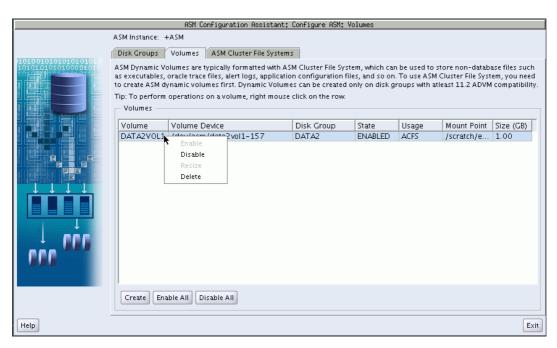
**Explanation:** Right click a selected volume in the Oracle ASM Configuration Assistant screen to display the configuration options menu. The menu options include:

Enable a disabled volume

Disable an enabled volume

Resize a volume that has not been mounted on an Oracle ACFS file system

Delete a volume



Description of Figure 11-7 follows

Reference: Managing Oracle ADVM Volumes with Oracle ASM Configuration Assistant

#### **Question No: 22**

Which two statements are true about starting and stopping all instances of a RAC database simultaneously with a single command?

- A. The user must be SYSDBA.
- **B.** The user must be a member of the OSDBA group.
- C. The user can use SQL\* Plus from local node.
- D. The user can use SRVCTL.

# Answer: A,D

# **Explanation:**

- \* Connecting as SYSOPER or SYSDBA enables you to perform privileged operations, such as instance startup and shutdown.
- \* When you use SRVCTL to perform configuration operations on your cluster, SRVCTL stores configuration data in the Oracle Cluster Registry (OCR). SRVCTL performs other operations, such as starting and stopping instances, by calling SQL\*Plus on each node.

Reference: Overview of Administering Oracle Real Application Clusters with SQL\*Plus

#### **Question No: 23**

Identify three valid storage options for the OCR and voting disk for it new installation of Infrastructure 11g Release 2.

- A. A certified Cluster File System (CFS)
- **B.** A certified Network File System (NFS)
- C. ASM Cluster File System (ACFS)
- **D.** Automatic Storage Management (ASM)
- E. Shared disk slices (block or raw devices)

Answer: B,C,D

**Explanation:** 

B: Network attached storage (NAS) systems use a network file system (NFS) to access

data. You can store Oracle RAC data files and recovery files on a supported NAS server

using the Oracle Direct NFS client.

C: Oracle Automatic Storage Management Cluster File System (Oracle ACFS) provides a

general purpose file system. You can place the Oracle home for an Oracle Database 11g

release 2 (11.2) database on Oracle ACFS, but you cannot place Oracle data files or

Oracle Clusterware files on Oracle ACFS.

D: Oracle recommends that you choose Oracle ASM as the shared storage option for the

database data files and recovery files.

Reference: General Storage Considerations for Oracle Grid Infrastructure

Question No: 24

In the end of the database creation process using DBCA which two options can you choose

from?

A. Create database

**B.** Generate database creation scripts

**C.** Initialize the database instance

**D.** Configure the database initialization parameters such as memory target, character set,

etc.

Answer: A,C

**Explanation:** Database Creation Options

Check any of the following options for creating the database:

\* Create Database—Check to create your database at this time.

\* Save as a Database Template—Check to save the database definition as a template to

use at another time.

\* Generate Database Creation Scripts—Check to generate a SQL database creation script

that you can run at a later time.