11gR2 – RAC Course Content

Section 1 - Grid Infrastructure: Clusterware and ASM

Oracle Grid Infrastructure

[ ] Explain the principles and purposes of clusters
[ ] Describe Cluster hardware best practices
[ ] Understand Oracle Clusterware Architecture
[ ] Describe how Grid Plug and Play affects Clusterware
[ ] Describe ASM architecture and components

Grid Infrastructure Installation

[ ] Perform pre-install tasks for Grid Infrastructure
[ ] Install Grid Infrastructure
[ ] Verify the installation
[ ] Configure ASM disk groups
[ ] Configure ASM volumes
[ ] Make ASM cluster file system
[ ] Mount ACFS volumes

Administering Oracle Clusterware

[ ] Display Clusterware management proficiency
[ ] Demonstrate OCR backup and recovery techniques
[ ] Managing Network Settings

Managing Clusterware

[ ] Perform prerequisite steps for extending a cluster
[ ] Use Oracle Universal Installer (OUI) to add a node to an Oracle Clusterware home
[ ] Use OUI to remove a node from an Oracle Clusterware home

Making Applications Highly Available With Oracle Clusterware

[ ] Describe the High Availability components of Oracle Clusterware
[ ] Contrast Policy-Managed and Administration Managed databases
[ ] Describe the functionality of server pools
[ ] Describe application placement policies
[ ] Create an application Virtual IP (VIP)
[ ] Manage application resources

Troubleshooting Oracle Clusterware

[ ] Locate Oracle Clusterware log files
[ ] Gather all log files using diagcollection.pl
[ ] Enable resource debugging
[ ] Enable component-level debugging
[ ] Enable tracing for Java-based tools
[ ] Troubleshoot the Oracle Cluster Registry (OCR) file

Administering ASM Instances

[ ] Understand and apply ASM initialization parameters
[ ] Manage ASM instances and associated processes
[ ] Monitor ASM using the V$ASM dynamic performance views

Administering ASM Disk Groups

[ ] Create and delete ASM disk groups
[ ] Set the attributes of an existing ASM disk group
[ ] Perform ongoing maintenance tasks on ASM disk groups
[ ] Explain key performance and scalability considerations for ASM disk groups

Administering ASM Files, Directories, and Templates

[ ] Use different client tools to access ASM files
[ ] Describe the format of a fully qualified ASM file name
[ ] Explain how ASM files, directories and aliases are created and managed
[ ] Understand and manage disk group templates

Administering ASM Cluster File Systems

[ ] Administer ASM Dynamic Volume Manager
[ ] Manage ASM volumes
[ ] Implement ASM Cluster File System
[ ] Manage ASM Cluster File System (ACFS)
[ ] Use ACFS Snapshots
[ ] Using command line tools to Manage ACFS

Section 2 - Real Application Clusters

Real Application Clusters Database Installation

[ ] Install the Oracle database software

[ ] Create a cluster database

[ ] Perform post-database creation tasks

[ ] Perform a single instance to RAC conversion

RAC Database Administration

[ ] Use Enterprise Manager cluster database pages

[ ] Define redo log files in a RAC environment

[ ] Define undo tablespaces in a RAC environment

[ ] Start and stop RAC databases and instances

[ ] Modify initialization parameters in a RAC environment

Managing Backup and Recovery for RAC

[ ] Configure the RAC database to use ARCHIVELOG mode and the flash recovery area

[ ] Recover from media failure and instance failures

[ ] Tune instance recovery in RAC

[ ] Configure RMAN for the RAC environment

RAC DB Monitoring and Tuning

[ ] Determine RAC-specific tuning components

[ ] Determine RAC-specific wait events, global enqueues, and system statistics

[ ] Implement the most common RAC tuning tips

[ ] Use the Cluster Database Performance pages

[ ] Use the Automatic Workload Repository (AWR) in RAC

[ ] Use Automatic Database Diagnostic Monitor (ADDM) in RAC

Services

[ ] Configure and manage services in a RAC environment

[ ] Use services with client applications

[ ] Use services with the Database Resource Manager and scheduler

[ ] Configure services aggregation and tracing

High Availability Connections (Appendix-D)

[ ] Configure client-side, connect-time load balancing and connect-time failover

[ ] Configure server-side, connect-time load balancing
[ ] Use the Load Balancing Advisory (LBA)
[ ] Describe the benefits of Fast Application Notification (FAN)
[ ] Configure server-side callouts

[ ] Configure Transparent Application Failover (TAF)