

Symantec Certification Exam Objectives: Administration of Storage Foundation 5.0 for UNIX

The following tables list the Symantec Certification exam objectives for the *Administration of Storage Foundation 5.0 for UNIX* exam and how these objectives align to the *Veritas Storage Foundation 5.x for UNIX* course.

For more information on the Symantec Certification Program, visit:

<http://go.symantec.com/certification>.

Note: The Storage Foundation exam has been updated to software release 5.0 and is numbered 250-250. Exam 250-250 replaces the version SF-040X. All exam candidates are encouraged to take the latest version of the exam. SF-040X is still available and will fulfill the certification requirement until the exam is retired early 2008.

EXAM SECTION 1

Storage Foundation Concepts

Certification Objectives	Course Topics from <i>Veritas Storage Foundation 5.x for UNIX</i>
Describe the structural characteristics of a disk before and after it is placed under Volume Manager control.	Lesson: Virtual Objects Topics: Physical Data Storage, Virtual Data Storage
Identify the virtual objects that are created by Volume Manager to manage data storage, including disk groups, disks, subdisks, plexes, and volumes.	Lesson: Virtual Objects Topic: Volume Manager Storage Objects
Define Volume Manager RAID levels and identify virtual storage layout types used by Volume Manager to remap address space.	Lesson: Virtual Objects Topic: Volume Manager RAID Levels
Describe how dynamic multipathing works with active/active and active/passive disk arrays.	Lesson: Managing Devices Within the VxVM Architecture Topic: Managing Multiple Paths to Disk Devices

EXAM SECTION 2

Managing Storage with Storage Foundation

Certification Objectives	Course Topics from <i>Veritas Storage Foundation 5.x for UNIX</i>
Explain how to create and view layered volumes by using VEA and from the command line.	Lesson: Selecting Volume Layouts Topic: Creating a Layered Volume
Identify the stages of Volume Manager disk configuration.	Lesson: Creating a Volume and File System Topic: Preparing Disks and Disk Groups for Volume Creation
Given a scenario, explain how to create a disk group by using VEA and command line utilities.	Lesson: Creating a Volume and File System Topic: Preparing Disks and Disk Groups for Volume Creation
Given a scenario, explain how to view disk and disk group information and identify disk status.	Lesson: Creating a Volume and File System Topic: Displaying Disk and Disk Group Information

Given a scenario, explain how to manage disks, including adding a disk to a Volume Manager disk group, removing a disk from a disk group, and changing the disk media name.	Lesson: Creating a Volume and File System Topics: Preparing Disks and Disk Groups for Volume Creation, Removing Volumes, Disks, and Disk Groups
Given a scenario, explain how to manage disk groups, including deporting and importing a disk group, moving a disk group, renaming a disk group, destroying a disk group, and upgrading the disk group version.	Lesson: Creating a Volume and File System Topic: Removing Volumes, Disks, and Disk Groups Lesson: Making Basic Configuration Changes Topic: Moving Data Between Systems, Renaming Disks and Disk Groups, Managing Old Disk Group Versions
Given a scenario, explain how to create concatenated, striped, mirrored, and RAID-5 volumes by using VEA and from the command line	Lesson: Selecting Volume Layouts Topic: Creating Volumes with Various Layouts
Given a scenario, explain how to display volume layout information by using VEA and by using the vxprint command.	Lesson: Creating a Volume and File System Topic: Displaying Volume Configuration Information
Explain how to remove a volume from Volume Manager by using VEA and from the command line.	Lesson: Creating a Volume and File System Topic: Removing Volumes, Disks, and Disk Groups
Explain how to add a mirror to and remove a mirror from an existing volume by using VEA and from the command line	Lesson: Making Basic Configuration Changes Topic: Administering Mirrored Volumes
Describe the procedure to add a file system to an existing volume and administer VERITAS File System.	Lesson: Creating a Volume and File System Topic: Adding a File System to a Volume Lesson: Administering File Systems Topics: Using VERITAS File System Commands, Controlling File System Fragmentation, Logging in VxFS
Explain how to resize a volume, file system, or LUN while the volume remains online.	Lesson: Making Basic Configuration Changes Topic: Resizing a Volume
Explain how to change the volume layout while the volume remains online.	Lesson: Volume Maintenance Topic: Changing the Volume Layout
Given a scenario, explain how to manage the VxVM configuration database and the vxconfigd daemon.	Lesson: Managing Devices Within the VxVM Architecture Topic: Managing Components in the VxVM Architecture
Given a scenario, explain how to manage vxconfigd and vxctl.	Lesson: Managing Devices Within the VxVM Architecture Topics: Managing Components in the VxVM Architecture, Discovering Disk Devices
Given a scenario, explain the procedures to upgrade to a new Volume Manager version.	Lesson: Not covered in this course. Requires on-the-job experience. Topic: Not covered in this course. Requires on-the-job experience.
Explain the advantages, creation, and management of point-in-time copies.	Lesson: Point-in-Time Copies Topics: What Is a Point-In-Time Copy?, Types of PITC Solutions in Storage Foundation, Creating and Managing Volume Snapshots, Using Volume Snapshots for Off-Host Processing, Creating and Managing Storage Checkpoints

EXAM SECTION 3

Storage Foundation Performance Monitoring, Troubleshooting, and Recovery Essentials

Certification Objectives	Course Topics from <i>Veritas Storage Foundation 5.x for UNIX</i>
Describe the performance analysis process, tools, and factors to consider when analyzing system performance.	Lesson: Performance Monitoring Topics: Storage Performance Analysis Process, VxVM Performance Monitoring Tools and Techniques
Identify and interpret I/O failure through disk records and volume states.	Lesson: Resolving Hardware Problems Topic: How Does VxVM Interpret Failures in Hardware
Given a scenario, explain how to resolve disk failures by using Volume Manger commands.	Lesson: Resolving Hardware Problems Topic: Resolving Disk Failures
Given a scenario, explain how to interpret volume conditions.	Lesson: Maintaining Data Consistency Topic: Interpreting State Information for VxVM Objects
Given a scenario, explain how to fix plex and volume failures by using Volume Manager tools.	Lesson: Maintaining Data Consistency Topic: Modifying VxVM Object States
Given a scenario, explain how to resolve data consistency problems by analyzing and changing plex and volume states.	Lesson: Maintaining Data Consistency Topics: Interpreting State Information for VxVM Objects, Modifying VxVM Object States
Describe mirror resynchronization processes.	Lesson: Maintaining Data Consistency Topic: Resynchronization Operations
Explain how to replace a failed disk.	Lesson: Resolving Hardware Problems Topic: Resolving Disk Failures
Given a scenario, identify performance characteristics of and troubleshoot DMP.	Lesson: Managing Devices Within the VxVM Architecture Topic: Managing Multiple Paths to Disk Devices
Describe tasks used to protect the Volume Manager configuration.	Lesson: Resolving Hardware Problems Topic: Recovering Disabled Disk Groups Lesson: Managing Devices Within the VxVM Architecture Topic: Managing Components in the VxVM Architecture

Obtaining Symantec Certification

To become Symantec certified, candidates must pass exam(s) available through Prometric testing centers. To assist in preparation for the certification exams, candidates are strongly encouraged to attend training course(s) available through Symantec, in addition to meeting any necessary prerequisites, on-the-job experience, and study. Be cautioned that, attendance in a training course does not guarantee passage of a certification exam.

If you have questions about the Symantec Certification Program, send an email to Customer_Certifications@Symantec.com.