Key Topics

- Describe fundamental storage technologies required to support the MSL2024 and MSL4048 tape libraries
  - RAID levels
  - Storage networking technologies
  - Switches, hubs, routers, bridges
  - SCSI and Fibre Channel technologies
  - Nearline technologies
  - Tape media handling
- Describe HP StorageWorks nearline storage products and solutions
  - MSL2024/MSL4048 integration and configuration options
  - Differences between direct attached and SAN attached MSL solutions
  - Available drive options and differences (Ultrium960, Ultrium448, etc.
  - Differences between MSL2024 and MSL4048
  - Identify MSL2024/MSL4048 safety considerations
  - MSL2024/MSL4048 space, electrical, humidity, air quality and temperature requirements
  - Identify possible media/data issues, password protection, and external connections to the libraries
  - Describe the write protect mechanism on the tape cartridge
• Describe support options, such as base warranties, limitations and benefits
• Install, configure, set up or upgrade MSL2024 and MSL4048 Tape Libraries
  • Site preparation and installation precautions
  • Product components including shipping locks
  • Fibre Channel and SCSI requirements (bus type, HBA, LUN scanning
  • Library and drive power-up
  • Library configuration using the Operator Control Panel (OCP) and Remote Management Interface (RMI)
  • Network Storage Router (NSR) configuration
  • Perform basic library operation such as moving media, media inventory, unlocking magazines, cleaning drives, rebooting the library
  • Perform tape drive upgrades
• Perform troubleshooting, repair and replacement procedures
  • Check error counters/logfiles on the NSR
  • Perform visual inspection (check hardware indicators, cabling, mechanical, etc.
  • Verify correct Fibre Channel/SCSI cabling
  • OCP and RMI Support menus
  • Interpret library error codes
  • Use of Library and Tape Tools
  • Use of troubleshooting guides and information
  • Describe removal and replacement procedures for a drive in a single drive configuration and for drives in a multiple drive configuration
  • Magazine replacement using RMI, OCP and manual replacement
  • Replace power supply, controller, base chassis
  • Given a problem scenario, identify the cause of MSL2024/MSL4048 problems
Exam Specifications

- Number of items: 60
- Passing Criteria: 73% (44 items to pass)
- Time Allocated: 1 hour and 15 minutes

Exam Preparation

- Prerequisite Training
  - HP StorageWorks MSL2024/MSL4048 Service and Support (31000)
  - HP StorageWorks Tape Technologies & Standalone Tape Drive Service and Support WBT (700)
  - Storage Basics for Better TCE (NEX2-STORAGEBASEvA)

- Documentation
  - HP StorageWorks N1200-320 4Gb Network Storage Router user and service guide, part number AG314-96001
  - HP StorageWorks Library & Tape Tools User Guide
  - HP StorageWorks MSL2024 Tape Library User and Service Guide

Available Study Materials

This certification test was developed to test your knowledge of the HP StorageWorks MSL2024 and MSL4048 tape libraries. We recommend that you have significant hands-on experience with the products before you take the exam.

These study materials are not required to pass the certification exam. They are simply additional exam preparation materials of which we are aware. Please refer to your regional websites for information on how to register for the course below.

- HP StorageWorks MSL2024/NSL4048 Service and Support (31000)
- HP StorageWorks Tape Technologies & Standalone Tape Drive Service and Support WBT (700)
Sample Exam Items

The following examples represent the types of items and question formats that you could see on the exam. These are generic samples and do not reflect the content being tested.

1. Which planet is closest to the Earth?
   A. Mars
   B. Pluto
   C. Venus
   D. Saturn

2. Which planets are “inner planets” — planets found within the asteroid belt? (Select two.)
   A. Pluto
   B. Earth
   C. Neptune
   D. Mercury
   E. Venus

3. Refer to the Exhibit.
   What is this constellation called?
   A. Leo
   B. Aries
   C. Orion
   D. Taurus
   E. Gemini
   F. Pleiades
   G. Ursa Minor
Exam Registration

- This exam is available at [Prometric](#).

Conclusion

HP wishes you success in the HP Certified Professional Program and in passing the exam for which you are preparing.