

Domain 1: Personal Computer System Components

- 1.1 Identifying Components of Motherboards
 - 1.11 Types of System Boards
 - 1.12 System Board Form Factors
 - 1.13 System Board Components
- 1.2 Identifying Purposes and Characteristics of Processors
- 1.3 Identifying Purposes and Characteristics of Memory
 - 1.31 Important Memory Terms
 - 1.32 Types of Memory
 - 1.33 Memory Packaging
- 1.4 Identifying Characteristics of Ports and Cables
 - 1.41 Peripheral Port Connector Types
 - 1.42 Common Peripheral Interfaces and Cables
- 1.5 Identifying Purposes and Characteristics of Cooling Systems
 - 1.51 Fans
 - 1.52 Memory Cooling
 - 1.53 Hard Drive Cooling
 - 1.54 Chipset Cooling
 - 1.55 CPU Cooling

Domain 2: Storage Devices, Power Supplies, and Adapters

- 2.1 Identifying Purposes and Characteristics of Storage Devices
 - 2.11 Hard Disk Drive Systems
 - 2.12 Floppy Drives
 - 2.13 Optical Storage Drives
 - 2.14 Other Storage Media
- 2.2 Identifying Purposes and Characteristics of Power Supplies
 - 2.21 Floppy Drive Power Connectors
 - 2.22 AT System Connectors
 - 2.23 Standard Peripheral Power Connector
 - 2.24 Modern Power Connectors
 - 2.25 AC Adapters as Power Supplies
- 2.3 Identifying Input Devices
 - 2.31 Mouse
 - 2.32 Keyboard
 - 2.33 Barcode Reader

- 2.34 Multimedia Devices
- 2.35 Biometric Devices
- 2.36 Touchscreens
- 2.37 KVM Switch
- 2.4 Identifying Purposes and Characteristics of Adapter Cards
 - 2.41 Video
 - 2.42 Multimedia
 - 2.43 I/O
 - 2.44 Communications

Domain 3: Understanding Display Devices

- 3.1 Understanding Display Types and Settings
 - 3.11 Video Display Types
 - 3.12 Adjusting Display Settings
- 3.2 Understanding Video Standards and Technologies
 - 3.21 Video Standards
 - 3.22 Advanced Video Resolutions
 - 3.23 LCD-Specific Concepts
 - 3.24 Additional Video Technologies

Domain 4: Understanding Laptops and Portable Devices

- 4.1 Understanding Laptop Architecture
 - 4.11 Laptops vs. Desktops
 - 4.12 Laptop Case
 - 4.13 Motherboards and Processors
 - 4.14 Memory
 - 4.15 Storage
 - 4.16 Input Devices
 - 4.17 Expansion Buses and Ports
 - 4.18 Docking Stations
 - 4.19 Power Systems
- 4.2 Laptop Power Management
 - 4.21 Understanding Laptop Power Management
 - 4.22 Managing Power in Windows

Domain 5: Installing and Configuring Printers

- 5.1 Understanding Printer Types and Processes
 - 5.11 Impact Printers
 - 5.12 Bubble-Jet Printers
 - 5.13 Laser Printers
 - 5.14 Printer Interfaces and Supplies
- 5.2 Installing and Configuring Printers
 - 5.21 Printer Installation Procedures

Domain 6: Operating System Features and Interfaces

- 6.1 Understanding Operating Systems
 - 6.11 Operating System Terms and Concepts
 - 6.12 Microsoft Windows
- 6.2 Using Operating Systems
 - 6.201 The Windows Interface
 - 6.202 What's in a Window?
 - 6.203 Control Panel
 - 6.204 The Command Prompt
 - 6.205 Administrative Tools
 - 6.206 The Registry
 - 6.207 Virtual Memory
 - 6.208 Windows System Files
 - 6.209 Disk Management
 - 6.210 File Management

Domain 7: Installing and Configuring Operating Systems

- 7.1 File Systems and Directories
 - 7.11 File Systems: FAT32 vs. NTFS
 - 7.12 Files and Folders
- 7.2 Installing Operating Systems
 - 7.21 Determining OS Installation Options
 - 7.22 Determining the Installation Method
 - 7.23 Preparing the Computer for Installation
 - 7.24 Installing Windows 2000

- 7.25 Windows XP Installation
- 7.26 Windows Vista Installation
- 7.27 Postinstallation Routines
- 7.3 Upgrading Operating Systems
 - 7.31 Upgrading to Windows Vista
 - 7.32 Upgrading to Windows XP
 - 7.33 Finalizing Your Upgrade
 - 7.34 Migrating User Data
- 7.4 Performing a Repair Install
- 7.5 Common Installation Problems
- 7.6 Installing Device Drivers
 - 7.61 Rights and Security Issues
 - 7.62 Basic Procedure for Device Installation
 - 7.63 Windows Version-Specific Installation Items
- 7.7 Optimizing Windows
 - 7.71 Keeping the System Current
 - 7.72 Power Management
- 7.8 Identifying Boot Sequences

Domain 8: Troubleshooting Theory and Preventive Maintenance

- 8.1 Understanding Troubleshooting Theory
 - 8.11 Identifying the Problem
 - 8.12 Establishing a Theory
 - 8.13 Testing Solutions
 - 8.14 Establishing a Plan of Action
 - 8.15 Verifying Functionality
 - 8.16 Documenting the Work
- 8.2 Understanding Preventive Maintenance
 - 8.21 Managing the Physical Environment
 - 8.22 Using the Right Repair Tools and Cleaning Materials
 - 8.23 Running Updates
 - 8.23 Using Disk Management Tools
 - 8.24 Backing Up Data and Creating Restore Points

Domain 9: Troubleshooting Operating Systems, Hardware, Printers, and Laptops

- 9.1 Identifying Troubleshooting Resources

- 9.11 User/Installation Manuals
- 9.12 Internet/Web Resources
- 9.13 Training Materials
- 9.2 Understanding Operating System and Hardware Symptoms
 - 9.21 Troubleshooting Common Operating System Problems
 - 9.22 Troubleshooting Hardware Symptoms
 - 9.23 Troubleshooting Printers
- 9.3 Troubleshooting Common Laptop Issues
 - 9.31 Diagnosing Laptop Problems
 - 9.32 Preventive Maintenance on Laptops

Domain 10: Understanding Networking

- 10.1 Understanding Networking Principles
 - 10.11 Understanding Networking Fundamentals
 - 10.12 Understanding Networking Protocols
- 10.2 Identifying Common Network Hardware
 - 10.21 Network Interface Cards (NICs)
 - 10.22 Cabling and Connectors
 - 10.23 Networking Components
- 10.3 Comparing Network Types
 - 10.31 Wired Networks
 - 10.32 Wireless Networks
 - 10.33 Virtual Private Networks (VPNs)

Domain 11: Understanding Network Security Fundamentals

- 11.1 Understanding Security
 - 11.11 Authentication Technologies
 - 11.12 Working with Hardware and Software Security
 - 11.13 Understanding Wireless Security
 - 11.14 Understanding Physical and Data Security
- 11.2 Security Solutions
 - 11.21 BIOS Security
 - 11.22 Malicious Software Protection
 - 11.23 Data Access
 - 11.24 Data Remnant Removal
 - 11.25 Password Management
 - 11.26 Locking Workstations

11.3 Identifying Security Problem Areas

Domain 12: Understanding Operational Procedures

- 12.1 Understanding Safety and Environmental Issues
 - 12.11 Identifying Potential Safety Hazards
 - 12.12 Identifying Environmental Concerns
 - 12.13 Using Safety Documentation
 - 12.14 Using Appropriate Repair Tools
 - 12.15 Handling Accidents
- 12.2 Applying Proper Safety and Disposal Procedures
 - 12.21 Preventing Electrostatic Discharge
 - 12.22 Preventing Electromagnetic Interference
 - 12.23 Working in a Safe Environment
 - 12.24 Handling Equipment
 - 12.25 Following Disposal Procedures
- 12.3 Demonstrating Communication Skills and Professionalism
 - 12.31 Communicating with Customers
 - 12.32 Using Appropriate Behavior
 - 12.33 Putting It All in Perspective

Domain 13: Installing, Maintaining, and Troubleshooting Hardware

- 13.1 Installing, Configuring, and Maintaining PC Components
 - 13.11 Working with Storage Devices
 - 13.12 Working with Motherboards, CPUs, Memory, and Adapter Cards
 - 13.13 Working with Power Supplies
 - 13.14 Working with Cooling Systems
- 13.2 Identifying Tools and Diagnostics for PC Components
 - 13.21 Gathering Tools
 - 13.22 Recognizing and Isolating Issues
 - 13.23 Applying Basic Troubleshooting Techniques
- 13.3 Removing, Installing, and Configuring Components
 - 13.31 Selecting Components
- 13.4 Using Tools and Diagnostic Procedures for Personal Computer Components
 - 13.41 Understanding Computer Resources
 - 13.42 Determining Available Resources
 - 13.43 Manually Specifying a Resource Assignment

Domain 14: Installing, Configuring, and Troubleshooting Laptops

- 14.1 Disassembling and Reassembling Laptops
 - 14.11 Using the Right Tools
 - 14.12 Organization and Documentation
- 14.2 Replacing Laptop Components
 - 14.21 Understanding LCDs
 - 14.22 Replacing Hard Drives and Memory
 - 14.23 Recognizing Internal Laptop Expansion Slots
 - 14.24 Upgrading Wireless and Video Cards
 - 14.25 Replacing Other Internal Components
 - 14.26 Removing External Hardware

Domain 15: Resolving Printer Problems

- 15.1 Troubleshooting Printer Problems
 - 15.11 Dot-Matrix Printer Problems
 - 15.12 Bubble-Jet Printer Problems
 - 15.13 Laser Printer Problems
- 15.2 Performing Preventive Maintenance
 - 15.21 Performing Scheduled Maintenance
 - 15.22 Using Cleaning Solutions
 - 15.23 Ensuring a Suitable Environment
 - 15.24 Using Recommended Supplies
 - 15.25 Installing Printer Upgrades

Domain 16: Operating System Structures and Commands

- 16.1 Using Operating Systems
 - 16.11 Using the Command Prompt
- 16.2 Understanding and Navigating Directory Structures
- 16.3 User File Locations
- 16.4 System File Locations
- 16.5 Font Files
- 16.6 Managing Temporary Files
- 16.7 Program Files

- 16.8 Offline Files
 - 16.81 Windows Vista
 - 16.82 Windows XP
 - 16.83 Windows 2000

Domain 17: Operating System Utilities and Troubleshooting Issues

- 17.1 Performing Preventive Maintenance on Operating Systems
 - 17.11 Using Recommended Hardware
 - 17.12 Obtaining Current Drivers
 - 17.13 Installing Windows Properly
 - 17.14 Shutting Down Properly
 - 17.15 Updating Windows
 - 17.16 Creating Restore Points
- 17.2 Dealing with Boot Issues
 - 17.21 Advanced Startup Options
 - 17.22 Using the Repair Options (Windows Vista)
 - 17.23 Using the Recovery Console (Windows 2000 and Windows XP)
 - 17.24 Creating Boot Disks or an Emergency Repair Disk
 - 17.25 Common Boot Errors and Solutions
- 17.3 Solving Windows File-Related Problems
 - 17.31 System Files Not Found
 - 17.32 Configuration File Issues
 - 17.33 Swap File Issues
 - 17.34 Troubleshooting Other Common Problems
 - 17.35 Understanding Windows Reporting
- 17.4 Using Windows-Based Troubleshooting Utilities
 - 17.41 Disk Management Tools
 - 17.42 System Management Tools
- 17.5 Disk and Remote Management
 - 17.51 Getting Disks Ready to Store Files and Programs
 - 17.52 Remote Desktop Connection and Assistance
- 17.6 System Performance and Optimization
 - 17.61 Common Operational Problems

Domain 18: Installing and Troubleshooting Networks

- 18.1 Installing and Configuring SOHO Networks

- 18.11 Choosing Connection Types
- 18.12 Installing the Network
- 18.13 Understanding Firewall Basics
- 18.2 Troubleshooting Client-Side Connectivity Issues
 - 18.21 Troubleshooting TCP/IP Settings
 - 18.22 Using Client-Side Tools
 - 18.23 Troubleshooting Proxies and Firewalls

Domain 19: System Security

- 19.1 Security Basics
- 19.2 Viruses and Malware
 - 19.21 Symptoms of a Virus/Malware Infection
 - 19.22 How Viruses Work
 - 19.23 Types of Viruses
 - 19.24 Virus Transmission in a Network
 - 19.25 Antivirus Software
- 19.3 Recognizing Common Attacks
 - 19.31 Back Door Attacks
 - 19.32 Spoofing Attacks
 - 19.33 Man-in-the-Middle Attacks
 - 19.34 Replay Attacks
 - 19.35 Password-Guessing Attacks
 - 19.36 Denial-of-Service (DoS) and Distributed DoS (DDoS) Attacks
 - 19.37 TCP Attacks
- 19.4 Recovering Operating Systems
 - 19.41 Recovery Console
 - 19.42 Recovery CD/DVD
 - 19.43 Automated System Recovery
 - 19.44 Emergency Repair Disk
 - 19.45 Diagnostic Tools
- 19.5 Security and Troubleshooting
 - 19.51 Hardening the OS
 - 19.52 Updating Your Operating System
 - 19.53 Working with Filesystems
 - 19.54 General Rules for Security and Troubleshooting
- 19.6 Access Control
 - 19.61 Working with Policies
 - 19.62 Working with Disks and Directories

19.63 Auditing and Logging

19.64 BIOS Security

19.65 Encrypting File System

19.66 General Rules for the Exam on Access Control