CompTIA A+ Certification Comprehensive: Exams 220-1101 and 220-1102

Days: 5

Prerequisites: This course assumes that you have basic computer knowledge.

Description: This course provides the basic knowledge needed to install, configure, and support computer software and implement networking. This includes:

- Applying basic methodical troubleshooting skills as an IT technician

- Identifying motherboard and CPU components, installing or replacing them, and troubleshooting their functions

- Identifying power supply functions and connectors, installing them into a PC, and troubleshooting power issues

- Configuring BIOS/UEFI firmware, identifying and installing RAM, and troubleshooting memory issues

- Comparing internal and external expansion buses on a computer, installing internal cards, and identifying expansion cables and connectors

- Distinguishing between physical storage technologies, installing drives, and troubleshooting storage problems

- Connecting, configuring, and troubleshooting common input-output devices

- Describing common printing technologies, installing and maintaining printers, and troubleshooting printing issues

- Identifying client operating system features, installing Windows and application software, and working with scripts

- Managing and troubleshooting operating systems using built-in administrative tools, such as the Windows Control Panel, Windows Settings, and command-line utilities

- Describing network principles, network devices, and internet connection technologies

- Identifying and categorizing network cables and connectors

- Configuring and troubleshooting issues related to TCP/IP and other network protocols

- Describing common wireless networking standards and encryption methods

- Configuring and troubleshooting problems with Windows resource sharing and network connections

- Identifying and using virtualization technology and cloud computing services

- Identifying types of mobile devices and operating systems, and configuring and troubleshooting mobile devices

- Recognizing common cybersecurity threats and the security controls which are used to reduce risk

- Identifying and using security features built into operating systems, as well as security hardware and software used on workstations and networks

- Securing workstations and mobile devices against security risks, and troubleshooting common security issues such as malware infection

- Applying best practices in IT operations, including policies, documentation, ticketing systems, incident response, and data backups and recovery

This course maps to the CompTIA A+ Certification 220-1101 and 220-1102 certification exams.

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OUTLINE:

INTRODUCTION
- Course setup
- A+ Certification skills inventory

CHAPTER 1: TROUBLESHOOTING
- Module A: Troubleshooting theory
- Module B: Safety
- Module C: Environmental factors

CHAPTER 2: MOTHERBOARDS AND CPUS
- Module A: Motherboards
- Module B: CPUs

CHAPTER 3: COMPUTER POWER SUPPLIES
- Module A: Power supply connectors
- Module B: Power supply installation
- Module C: Power supply troubleshooting

CHAPTER 4: MEMORY
- Module A: Read-only memory
- Module B: Random access memory

CHAPTER 5: COMPUTER EXPANSION
- Module A: Expansion interfaces
- Module B: Expansion card installation
- Module C: Connectors and cables

CHAPTER 6: PHYSICAL STORAGE
- Module A: Disk drives
- Module B: RAID storage
- Module C: Optical drives
- Module D: Other storage methods

CHAPTER 7: INPUT-OUTPUT DEVICES
- Module A: Input devices
- Module B: Display output devices
- Module C: Display management
- Module D: Other input and output devices

CHAPTER 8: PRINTERS AND MULTI-FUNCTION PRINT DEVICES
- Module A: Printer technologies
- Module B: Printer installation and maintenance
- Module C: Printer troubleshooting

CHAPTER 9: OPERATING SYSTEMS
- Module A: Windows versions and features
- Module B: Non-Windows operating systems
- Module C: Operating system installation and upgrades
- Module D: Applications and scripting

CHAPTER 10: OPERATING SYSTEM MANAGEMENT
- Module A: Operating system features and tools
- Module B: Control Panel utilities
- Module C: Command-line utilities
- Module D: Operating system troubleshooting

CHAPTER 11: NETWORK BASICS
- Module A: Classifying networks
- Module B: Network devices
- Module C: Internet connections

CHAPTER 12: NETWORK CABLES AND CONNECTORS
- Module A: Twisted-pair connections
- Module B: Coaxial connections
- Module C: Optical media

CHAPTER 13: NETWORK PROTOCOLS
- Module A: TCP/IP settings
- Module B: Transport protocols
- Module C: Application protocols

CHAPTER 14: WIRELESS NETWORKING
- Module A: Wireless technology
- Module B: Wi-Fi standards

CHAPTER 15: WINDOWS NETWORKING
- Module A: Network shares
- Module B: Network connections
- Module C: Connection troubleshooting

CHAPTER 16: VIRTUALIZATION AND CLOUD COMPUTING
- Module A: Virtualization
- Module B: Cloud computing

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