Linux Pathshala

CompTIA A+ Certification Course Outline
Exam Numbers: 220-901 & 220-902
Duration: 84 Hours

Hardware
- Brief History of Computer Technology & Computer Components
- Explain the importance of Motherboard components, their purpose, and properties
- Compare and contrast various RAM types and their features
- Install and Configure PC expansion cards
- Install and configure storage devices and use appropriate media
- Install various types of CPUs and apply the appropriate cooling methods
- Compare and contrast various PC connection interfaces, their characteristics and purpose
- Install a power supply based on given specifications
- Select the appropriate components for a custom PC configuration to meet customer specifications or needs
- Given a scenario, configure setting and use BIOS/UEFI tools on a PC
- Compare and contrast types of display devices and their features
- Identify common PC connector types and associated cables
- Install and configure common peripheral devices
- Install SOHO multifunction device/printers and configure appropriate setting
- Compare and contrast difference between the various print technologies and the associated imaging process
- Given a scenario, perform appropriate printer maintenance

Networking
- Identify the various type of network cables and connectors
- Compare and contrast the characteristics of connectors and cabling
- Explain the Properties and characteristics of TCP/IP
- Explain common TCP and UDP ports, protocols, and their purpose
- Compare and contrast various Wi-Fi networking standards and encryption types
- Given a scenario, install and configure SOHO wireless/wired router and apply appropriate settings
- Compare and contrast Internet connection types, network types, and their features
- Compare and contrast network architecture devices, their functions, and features
- Compare and contrast network architecture devices, their functions, and features
- Given a scenario, use appropriate networking tools

Mobile Devices

- Install and configure laptop hardware and components
- Explain the function of components within the display of a laptop
- Compare and contrast accessories & ports of other mobile devices

Windows Operating System
- Compare and contrast various features and requirements of Microsoft Operating System (Windows Vista, Windows 7, Windows 7, Windows 8, Windows 8.1, and Windows 10).
- Install Windows PC operating systems using appropriate methods
- Apply appropriate Microsoft command line tools
- Use appropriate Microsoft operating system features and tools
- Given a scenario, use Windows Control Panel utilities
- Given a scenario, install and configure Windows networking on a client/desktop
- Perform common preventive maintenance procedures using the appropriate Windows OS tools

Other Operating System and Technologies
- ➢ Identify common features and functionality of the Mac OS and Linux operating Systems
- ➢ Given a scenario, setup and use client-side virtualization
- ➢ Identify basic cloud concepts
- ➢ Summarize the properties and purpose of services provided by networked hosts
- ➢ Identify basic features of mobile operation systems
- ➢ Install and configure basic mobile device network connectivity and email
- ➢ Summarize methods and data related to mobile device synchronization

Security

- ➢ Identify common security threats and vulnerabilities
- ➢ Compare and contrast common prevention methods
- ➢ Compare and contrast differences of basic Windows OS security settings
- ➢ Given a scenario, deploy and enforce security best practices to secure a workstation
- ➢ Compare and contrast various methods for securing mobile devices
- ➢ Given a scenario, use appropriate data destruction and disposal methods
- ➢ Given a scenario, secure SOHO wireless and wired networks

Software Troubleshooting
- ➢ Troubleshoot PC operating system problems with appropriate tools
- ➢ Troubleshoot common PC security issues with appropriate tools and best practices
- ➢ Troubleshoot common mobile OS and application issues with appropriate tools
- ➢ Troubleshoot common mobile OS and application security issues with appropriate tools

Hardware and Network Troubleshooting
- ➢ Troubleshoot common problems related to motherboards, RAM, CPU and power with appropriate tools
- ➢ Troubleshoot hard drives and RAID arrays with appropriate tools
- ➢ Troubleshoot common video, projector and display issues
- ➢ Troubleshoot wired and wireless networks with appropriate tools
- ➢ Troubleshoot and repair common mobile device issues while adhering to appropriate procedures
- ➢ Troubleshoot printers with appropriate tools

Operational Procedures
- ➢ Use appropriate safety procedures
- ➢ Given a scenario with potential environment impacts, apply the appropriate controls
- ➢ Summarize the process of addressing prohibited content/activity, and explain privacy, licensing and policy concepts
- ➢ Demonstrate proper communication techniques and professionalism
- ➢ Explain the troubleshooting theory