Mobile Devices

CompTIA A+ certification, Core 1 (220-1201) and Core 2 (220-1202)

13% of the exam · 3 exam objectives · 220-1201

Mobile Devices covers keeping laptops and phones working and connected. Monitor hardware before replacing it (battery reports, memory diagnostics, S.M.A.R.T. data), handle swollen batteries as a safety issue, and match replacement parts to the form factor: SODIMM memory, the right storage slot, M.2 wireless cards with their antenna leads in the display. Know the connectors (USB-C, microUSB, miniUSB, Lightning), the wireless links (NFC by touch, Bluetooth for accessories, tethering or a hotspot to share data) and the accessories, from styluses and webcams to docking stations. Then configure the device: cellular data, Wi-Fi and SIM or eSIM, Bluetooth pairing in order, location services, MDM for corporate and BYOD devices, and synchronization of mail, calendar, contacts and cloud storage within a data cap.

You should be able to: A user's laptop Wi-Fi has been weak since a display repair, and their personal phone needs work email without the company controlling personal apps. What is the likely Wi-Fi cause, and which MDM configuration fits the phone?

Every exam objective: the key point and the trap

1.1 Given a scenario, monitor mobile device hardware and use appropriate replacement techniques.

Monitor before you replace: the battery report compares full charge capacity with design capacity, memory diagnostics test RAM, and S.M.A.R.T. data warns of a failing HDD or SSD.

Trap: Replacing an expensive part first. Most symptoms in this objective have a simpler cause to rule out (a closed shutter, a mute key, a loose antenna lead), and a swollen battery is a safety step before it is a repair.

1.2 Compare and contrast accessories and connectivity options for mobile devices.

USB-C is a reversible industry standard that can carry data, power and display signals together. microUSB (small) and miniUSB (older, larger) are one-way connectors.

Trap: Treating USB-C and Lightning as the same thing because both are reversible. USB-C is an open standard; Lightning is proprietary to Apple.

1.3 Given a scenario, configure basic mobile device network connectivity and provide application support.

Wireless and cellular data (3G, 4G, 5G), Wi-Fi and the hotspot can each be enabled or disabled. Turning off cellular data or data roaming while keeping Wi-Fi on controls cost abroad.

Trap: Assuming a BYOD device is managed like a corporate one. A BYOD configuration manages corporate apps and data, not the owner's personal content.

Key terms

NFC: Near-field Communication

MDM: Mobile Device Management

BYOD: Bring Your Own Device

SIM: Subscriber Identity Module

eSIM: Embedded SIM

GPS: Global Positioning System

PIN: Personal Identification Number

SODIMM: Small Outline Dual In-line Memory Module

SSD: Solid-state Drive

USB-C: Universal Serial Bus Type C

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