



5.0 Hardware and Network Troubleshooting

5.1 Given a scenario, troubleshoot motherboards, RAM, CPUs, and power.

- Common symptoms
 - Power-on self-test (POST) beeps
 - Proprietary crash screens
 - Blank screen
 - No power
 - Sluggish performance
 - Overheating
 - Burning smell
 - Random shutdown
 - Application crashes
 - Unusual noise
 - Capacitor swelling
 - Inaccurate system date/time

5.2 Given a scenario, troubleshoot drive and RAID issues.

- Common symptoms
 - Light-emitting diode (LED) status indicators
 - Grinding noises
 - Clicking sounds
 - Bootable device not found
 - Data loss/corruption
 - RAID failure
 - Self-monitoring and Reporting Technology (S.M.A.R.T.) failure
 - Extended read/write times
 - Low performance input/output operations per second (IOPS)
 - Missing drives in OS
 - Array missing
 - Audible alarms

5.3 Given a scenario, troubleshoot video, projector, and display issues.

- Common symptoms
 - Incorrect input source
 - Physical cabling issues
 - Burnt-out bulb
 - Fuzzy image
 - Display burn-in
 - Dead pixels
 - Flashing screen
 - Incorrect color display
 - Audio issues
 - Dim image
 - Intermittent projector shutdown
 - Sizing issues
 - Distorted image

5.4 Given a scenario, troubleshoot common mobile device issues.

- Common symptoms
 - Poor battery health
 - Swollen battery
 - Broken screen
 - Improper charging
 - Poor/no connectivity
 - Liquid damage
 - Overheating
 - Digitizer issues
 - Physically damaged ports
 - Malware
 - Cursor drift/touch calibration
 - Unable to install new applications
 - Stylus does not work
 - Degraded performance



5.5 Given a scenario, troubleshoot network issues.

- Common symptoms
 - Intermittent wireless connectivity
 - Slow network speeds
 - Limited connectivity
 - Jitter
 - Poor Voice over Internet Protocol (VoIP) quality
- Port flapping
- High latency
- External interference
- Authentication failures
- Intermittent internet connectivity

5.6 Given a scenario, troubleshoot printer issues.

- Lines down the printed pages
- Garbled print
- Paper jams
- Faded prints
- Paper not feeding
- Multipage misfeed
- Multiple prints pending in queue
- Speckling on printed pages
- Double/echo images on the print
- Grinding noise
- Finishing issues
 - Staple jams
 - Hole punch
- Incorrect page orientation
- Tray not recognized
- Connectivity issues
- Frozen print queue