4.0 Operational Procedures

4.1 Given a scenario, implement best practices associated with documentation and support systems information management.

- **Ticketing systems**
  - User information
  - Device information
  - Description of problems
  - Categories
  - Severity
  - Escalation levels
  - Clear, concise written communication
    - Problem description
    - Progress notes
    - Problem resolution

- **Asset management**
  - Inventory lists
  - Database system
  - Asset tags and IDs
  - Procurement life cycle
  - Warranty and licensing
  - Assigned users
- **Types of documents**
  - Acceptable use policy (AUP)
  - Network topology diagram
  - Regulatory compliance requirements
    - Splash screens

- Incident reports
- Standard operating procedures
  - Procedures for custom installation of software package
- New-user setup checklist
- End-user termination checklist
- **Knowledge base/articles**

4.2 Explain basic change-management best practices.

- **Documented business processes**
  - Rollback plan
  - Sandbox testing
  - Responsible staff member

- **Change management**
  - Request forms
  - Purpose of the change
  - Scope of the change
  - Date and time of the change
  - Affected systems/impact
  - Risk analysis
    - Risk level
  - Change board approvals
  - End-user acceptance

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4.3 Given a scenario, implement workstation backup and recovery methods.

- **Backup and recovery**
  - Full
  - Incremental
  - Differential
  - Synthetic

- **Backup testing**
  - Frequency

- **Backup rotation schemes**
  - On site vs. off site
  - Grandfather-father-son (GFS)
  - 3-2-1 backup rule

4.4 Given a scenario, use common safety procedures.

- **Electrostatic discharge (ESD) straps**
- **ESD mats**
- **Equipment grounding**
- **Proper power handling**

- **Proper component handling and storage**
- **Antistatic bags**
- **Compliance with government regulations**

- **Personal safety**
  - Disconnect power before repairing PC
  - Lifting techniques
  - Electrical fire safety
  - Safety goggles
  - Air filtration mask

4.5 Summarize environmental impacts and local environmental controls.

- **Material safety data sheet (MSDS)/documentation for handling and disposal**
  - Proper battery disposal
  - Proper toner disposal
  - Proper disposal of other devices and assets

- **Temperature, humidity-level awareness, and proper ventilation**
  - Location/equipment placement
  - Dust cleanup
  - Compressed air/vacuums

- **Power surges, under-voltage events, and power failures**
  - Battery backup
  - Surge suppressor

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4.6 Explain the importance of prohibited content/activity and privacy, licensing, and policy concepts.

- **Incident response**
  - Chain of custody
  - Inform management/law enforcement as necessary
  - Copy of drive (data integrity and preservation)
  - Documentation of incident

- **Licensing/digital rights management (DRM)/end-user license agreement (EULA)**
  - Valid licenses
  - Non-expired licenses
  - Personal use license vs. corporate use license
  - Open-source license

- **Regulated data**
  - Credit card transactions
  - Personal government-issued information
  - PII
  - Healthcare data
  - Data retention requirements

4.7 Given a scenario, use proper communication techniques and professionalism.

- **Professional appearance and attire**
  - Match the required attire of the given environment
    - □ Formal
    - □ Business casual
- **Use proper language and avoid jargon, acronyms, and slang, when applicable**
- **Maintain a positive attitude/ project confidence**
- **Actively listen, take notes, and avoid interrupting the customer**
- **Be culturally sensitive**
  - Use appropriate professional titles, when applicable
- **Be on time (if late, contact the customer)**

- **Avoid distractions**
  - Personal calls
  - Texting/social media sites
  - Personal interruptions
- **Dealing with difficult customers or situations**
  - Do not argue with customers or be defensive
  - Avoid dismissing customer problems
  - Avoid being judgmental
  - Clarify customer statements (ask open-ended questions to narrow the scope of the problem, restate the issue, or question to verify understanding)
  - Do not disclose experience via social media outlets

- **Set and meet expectations/time line and communicate status with the customer**
  - Offer repair/replacement options, as needed
  - Provide proper documentation on the services provided
  - Follow up with customer/user at a later date to verify satisfaction
- **Deal appropriately with customers' confidential and private materials**
  - Located on a computer, desktop, printer, etc.

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4.8 Identify the basics of scripting.

- **Script file types**
  - .bat
  - .ps1
  - .vbs
  - .sh
  - .js
  - .py

- **Use cases for scripting**
  - Basic automation
  - Restarting machines
  - Remapping network drives
  - Installation of applications
  - Automated backups
  - Gathering of information/data
  - Initiating updates

- **Other considerations when using scripts**
  - Unintentionally introducing malware
  - Inadvertently changing system settings
  - Browser or system crashes due to mishandling of resources

4.9 Given a scenario, use remote access technologies.

- **Methods/tools**
  - RDP
  - VPN
  - Virtual network computer (VNC)
  - Secure Shell (SSH)
  - Remote monitoring and management (RMM)
  - Microsoft Remote Assistance (MSRA)
  - Third-party tools
    - ▫ Screen-sharing software
    - ▫ Video-conferencing software
    - ▫ File transfer software
    - ▫ Desktop management software

- **Security considerations of each access method**

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