### 1. Personal Qualities and People Skills

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<th>Critical to Know</th>
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<tbody>
<tr>
<td>Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand.</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability.</td>
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<tr>
<td>Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed.</td>
<td>0</td>
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<tr>
<td>Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace.</td>
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<td>19</td>
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<tr>
<td>Demonstrate diversity awareness by working well with all customers and co-workers.</td>
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<td>14</td>
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<td>Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues.</td>
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<td>15</td>
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<tr>
<td>Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative.</td>
<td>5</td>
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## 2. Professional Knowledge and Skills

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<tr>
<td>Demonstrate effective speaking and listening skills by communicating effectively with customers and employees and following directions.</td>
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<tr>
<td>Demonstrate effective reading and writing skills by reading and interpreting workplace documents and writing clearly.</td>
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<tr>
<td>Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in completing assigned tasks.</td>
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<td>Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal health.</td>
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<td>Demonstrate understanding of workplace organizations, systems, and climates by identifying &quot;big picture&quot; issues and fulfilling the mission of the workplace.</td>
<td>9</td>
<td>13</td>
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<td>Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving professional skills.</td>
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<td>Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion.</td>
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<td>16</td>
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<td>Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of work.</td>
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<td>Demonstrate mathematical skills by using mathematical reasoning to accomplish tasks.</td>
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<td>Demonstrate customer service skills by identifying and addressing the needs of all customers and providing helpful, courteous, and knowledgeable service.</td>
<td>3</td>
<td>12</td>
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**Skipped** 0
### 3. Technology Knowledge and Skills

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<tbody>
<tr>
<td>Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources to accomplish work responsibilities in a productive manner.</td>
<td>3</td>
<td>17</td>
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<td>Demonstrate proficiency with information technology by using computers, file management techniques, and software/programs effectively.</td>
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<td>Demonstrate proper Internet use and security by using the Internet appropriately for work.</td>
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<tr>
<td>Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services, and applications.</td>
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<tr>
<td>1.1.1 Identify and understand motherboards and related components.</td>
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<td>10</td>
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<td>1.1.2 Identify and understand RAM types and features.</td>
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<td>14</td>
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<tr>
<td>1.1.3 Identify and understand expansion card uses and differences.</td>
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<td>14</td>
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<td>1.1.4 Understand differences and use of storage devices and media types.</td>
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<td>14</td>
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<td>1.1.5 Identify and understand CPU types and features.</td>
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<td>12</td>
<td>5</td>
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<tr>
<td>1.1.6 Identify power supply requirements and select appropriate unit for a system.</td>
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<td>12</td>
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<td>1.1.7 Demonstrate custom configurations per customer needs.</td>
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<tr>
<td>1.1.8 Identify and understand the use of connector types and associated cables.</td>
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<tr>
<td>1.1.9 Demonstrate the installation and configuration of peripheral devices.</td>
<td>11</td>
<td>10</td>
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<tr>
<td>1.1.10 Identify when a field replacement unit is needed.</td>
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### Performance Standard 1.2: Fundamental Networking Technologies

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<tr>
<td>1.2.1 Identify network cables and connectors and their characteristics.</td>
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<td>1.2.2 Explain TCP/IP suite characteristics and properties.</td>
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<td>1.2.3 Identify and understand the use of common TCP / UDP ports, protocols, and their characteristics.</td>
<td>7</td>
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<td>1.2.4 Understand wireless networking standards and encryption types.</td>
<td>9</td>
<td>12</td>
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<tr>
<td>1.2.5 Demonstrate installation, configuration, and deployment of a home office network.</td>
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<td>16</td>
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<tr>
<td>1.2.6 Understand and explain different Internet connection types and features.</td>
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<td>10</td>
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<td>1.2.7 Understand different network devices, their functions, and features.</td>
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<td>17</td>
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<td>1.2.8 Demonstrate the appropriate use of field networking tools.</td>
<td>3</td>
<td>16</td>
<td>15</td>
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<td>1.2.9 Identify appropriate hardware and software tools to troubleshoot connectivity issues.</td>
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- **Answered**: 34
- **Skipped**: 0

### Performance Standard 1.4: Printer and Imaging Hardware

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<td>1.4.1 Identify and explain the different types and use of printers.</td>
<td>16</td>
<td>15</td>
<td>3</td>
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<tr>
<td>1.4.2 Understand and explain the different imaging processes.</td>
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<td>9</td>
<td>1</td>
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<tr>
<td>1.4.3 Identify proper basic printer maintenance.</td>
<td>21</td>
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- **Answered**: 34
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## Performance Standard 1.5: Operating Systems

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<td>1.5.1 Understand the features and requirements of various operating systems.</td>
<td>1</td>
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<tr>
<td>1.5.2 Demonstrate how to install, upgrade, and configure an operating system.</td>
<td>5</td>
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<td>1.5.3 Understand and demonstrate the use of command line tools.</td>
<td>9</td>
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<tr>
<td>1.5.4 Understand and demonstrate operating system tools and utilities.</td>
<td>3</td>
<td>15</td>
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<tr>
<td>1.5.5 Understand networking and configuration of operating systems.</td>
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<td>19</td>
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<tr>
<td>1.5.6 Understand and explain the differences in basic OS security settings.</td>
<td>5</td>
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<td>15</td>
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<tr>
<td>1.5.7 Understand the basics of virtualization.</td>
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## Performance Standard 1.6: Basic Workstation Security

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<tr>
<td>1.6.1 Understand the application and usage of common prevention methods.</td>
<td>3</td>
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<td>1.6.2 Understand the differences in common security threats.</td>
<td>1</td>
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<td>16</td>
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<td>1.6.3 Demonstrate the implementation of best practices to secure a workstation.</td>
<td>5</td>
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<td>15</td>
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<tr>
<td>1.6.4 Understand appropriate data destruction and disposal methods.</td>
<td>10</td>
<td>12</td>
<td>12</td>
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<tr>
<td>1.6.5 Understand and demonstrate basic wired and wireless network security.</td>
<td>3</td>
<td>15</td>
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<tr>
<td>2.1.1 Compare the layers of the OSI and TCP/IP models.</td>
<td>14</td>
<td>9</td>
<td>11</td>
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<td>2.1.2 Classify how applications, devices, and protocols relate to the OSI model layers.</td>
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<td>11</td>
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<td>2.1.3 Explain the purpose and properties of IP addressing.</td>
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<td>2.1.4 Explain the purpose and properties of routing and switching.</td>
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<td>2.1.5 Identify common TCP and UDP well-known ports.</td>
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<td>2.1.6 Explain the function of common networking protocols.</td>
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<td>15</td>
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<td>2.1.7 Summarize DNS concepts and its components.</td>
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<td>17</td>
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<td>2.1.8 Identify virtual network components.</td>
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<td>2.2.1 Configure network devices using basic CLI and/or GUI as appropriate.</td>
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<td>19</td>
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<td>2.2.2 Explain the purpose and properties of DHCP.</td>
<td>1</td>
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<tr>
<td>2.2.3 Troubleshoot common router and switch problems.</td>
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<td>22</td>
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<tr>
<td>2.2.4 Design and implement a basic network.</td>
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<td>22</td>
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<tr>
<td>2.2.5 Demonstrate appropriate use of hardware tools to troubleshoot connectivity issues.</td>
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<td>7</td>
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<tr>
<td>2.2.6 Demonstrate appropriate use of software tools to troubleshoot connectivity issues.</td>
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### Performance Standard 2.3: Network Media and Topologies Installation and

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<td>2.3.1 Categorize standard media types and associated properties.</td>
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<td>16</td>
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<td>2.3.2 Categorize standard connector types based on network media.</td>
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<td>2.3.3 Categorize WAN technology types and properties.</td>
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<td>2.3.4 Troubleshoot common physical connectivity problems.</td>
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<td>2.3.5 Compare and contrast different network physical and logical topologies.</td>
<td>8</td>
<td>13</td>
<td>13</td>
<td>2.15</td>
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<td>2.3.6 Identify components of wiring distribution.</td>
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### Performance Standard 2.4: Network and Change Management

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<td>2.4.1 Identify and document the purpose and features of network devices.</td>
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<td>19</td>
<td>12</td>
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<td>2.4.2 Demonstrate best practices of network and configuration management.</td>
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### Performance Standard 2.5: Basic Network Security

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<td>2.5.1 Explain the methods of network access security.</td>
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<td>2.5.2 Explain methods of user authentication.</td>
<td>5</td>
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<td>13</td>
<td>2.24</td>
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<tr>
<td>2.5.3 Explain common threats, vulnerabilities, and mitigation techniques.</td>
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<td>13</td>
<td>18</td>
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<td>2.5.4 Install and configure a basic firewall.</td>
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<td>18</td>
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<tr>
<td>2.5.5 Categorize different types of network security appliances and methods.</td>
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<td>13</td>
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## Performance Standard 2.6: IP Addressing

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<tr>
<td>2.6.1 Understand the importance of subnetting.</td>
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<tr>
<td>2.6.2 Demonstrate and apply prefix notation in subnetting.</td>
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<tr>
<td>2.6.3 Design, calculate, and apply subnet masks and addresses to fulfill given topology.</td>
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## Performance Standard 2.7: Configuration of Network Devices Using CLI and GUI Commands

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<td>2.7.1 Configure hostname, password and interface configuration.</td>
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<td>9</td>
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<td>2.7.2 Configure static and dynamic routing.</td>
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<td>2.7.3 Verify network device configurations using investigative commands.</td>
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## CONTENT STANDARD 3.0: NETWORKING TECHNOLOGIES

### Performance Standard 3.1: Customer Service Communication Skills

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<th>Answer Choices</th>
<th>Nice to Know</th>
<th>Need to Know</th>
<th>Critical to Know</th>
<th>Rating Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1 Listen actively and ask relevant questions to understand customer needs.</td>
<td>2</td>
<td>4</td>
<td>28</td>
<td>2.76</td>
</tr>
<tr>
<td>3.1.2 Communicate effectively with non-technical customers.</td>
<td>3</td>
<td>5</td>
<td>26</td>
<td>2.68</td>
</tr>
<tr>
<td>3.1.3 Deal professionally with frustrated customers.</td>
<td>2</td>
<td>7</td>
<td>25</td>
<td>2.68</td>
</tr>
</tbody>
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Answered: 34  
Skipped: 0