

## Network Security (for the Level 4 Network Engineer Apprenticeship)

9628-405 Network Security

Sample question paper answer sheet

Pass mark 21/30 (70%)

Question	ANSWER KEY	Test specification reference
1	d	1.1a Explain terminology for key IT security concepts Information assurance <ul style="list-style-type: none"> <li>• CIA</li> <li>• Non repudiation</li> </ul>
2	b	1.1b Explain terminology for key IT security concepts Information assurance <ul style="list-style-type: none"> <li>• Threat</li> <li>• Vulnerability</li> <li>• Assets</li> <li>• Risk</li> <li>• Countermeasures</li> </ul>
3	a	1.1c Explain terminology for key IT security concepts Information security
4	b	1.1d Explain terminology for key IT security concepts Information risk management
5	a	1.2a Describe vulnerabilities and threats associated with IT security Vulnerabilities <ul style="list-style-type: none"> <li>• Physical access</li> <li>• User error</li> <li>• Malice</li> <li>• Firewall configuration</li> <li>• Password complexity</li> <li>• USB devices</li> <li>• OS/application patches</li> <li>• Coding errors</li> </ul>
6	c	1.2a Describe vulnerabilities and threats associated with IT security Vulnerabilities (as above)
7	d	1.2b Describe vulnerabilities and threats associated with IT security Threats <ul style="list-style-type: none"> <li>• Malware</li> </ul>
8	d	1.2b Describe vulnerabilities and threats associated with IT security Threats <ul style="list-style-type: none"> <li>• Malware</li> </ul>

9	c	<p>1.2c Describe vulnerabilities and threats associated with IT security Threats</p> <ul style="list-style-type: none"> <li>• Human behaviour</li> <li>• Hacking (brute force attack)</li> <li>• SPAM</li> <li>• Spoofing/man in the middle</li> <li>• Phishing</li> <li>• Spear phishing</li> <li>• Denial of service (DoS)</li> <li>• Distributed denial of service (DDoS)</li> </ul>
10	b	<p>1.2c Describe vulnerabilities and threats associated with IT security Threats (as above)</p>
11	b	<p>1.3a Explain risks management methods for different situations</p>
12	a	<p>1.3b Explain how to use risk calculation tools</p>
13	c	<p>1.4a Explain when to use IT security countermeasures and controls Environmental</p>
14	c	<p>1.4b Explain when to use IT security countermeasures and controls Technical</p>
15	d	<p>1.4c Explain when to use IT security countermeasures and controls Management (for procedural)</p>
16	b	<p>1.4d Explain when to use IT security countermeasures and controls Regulatory</p>
17	d	<p>2.1a Describe elements of network security that can be configured on a server to enhance security</p> <ul style="list-style-type: none"> <li>• System hardening</li> </ul>
18	a	<p>2.1b Describe elements of network security that can be configured on a server to enhance security</p> <ul style="list-style-type: none"> <li>• Virtual private networking</li> <li>• Firewall configuration</li> <li>• Intrusion detection/intrusion prevention (TRipwire/NIPS)</li> <li>• Anti-virus software</li> <li>• Spam filter</li> <li>• Enable and test system backups</li> </ul>
19	d	<p>2.1c Describe elements of network security that can be configured on a server to enhance security</p> <ul style="list-style-type: none"> <li>• Encryption</li> </ul>
20	b	<p>2.1d Explain the suitability of network security elements for different situations</p> <ul style="list-style-type: none"> <li>• System hardening</li> </ul>

21	c	2.1d Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• System hardening</li> </ul>
22	a	2.1e Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• Virtual private networking</li> <li>• Firewall configuration</li> <li>• Intrusion detection/intrusion prevention (TRipwire/NIPS)</li> <li>• Anti-virus software</li> <li>• Spam filter</li> <li>• Enable and test system backups</li> </ul>
23	b	2.1f Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• Encryption</li> </ul>
24	a	2.1f Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• Encryption</li> </ul>
25	b	2.2 Explain suitability of tools and techniques used to identify vulnerabilities and threats
26	c	2.2 Explain suitability of tools and techniques used to identify vulnerabilities and threats
27	b	2.3 a Recommend appropriate incident response for information security incidents
28	c	2.3b Describe how to identify different instances and escalate in an appropriate way Incident responses lifecycle
29	c	2.3c Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• Incident identification</li> <li>• Escalation and notification</li> <li>• Mitigation steps</li> <li>• Recovery/reconstitution procedures.</li> </ul>
30	c	2.3c Explain the suitability of network security elements for different situations <ul style="list-style-type: none"> <li>• Incident identification</li> <li>• Escalation and notification</li> <li>• Mitigation steps</li> <li>• Recovery/reconstitution procedures.</li> </ul>