

# LPI 020-100

**LPI Security Essentials Certification Questions & Answers** 

Exam Summary – Syllabus –Questions

020-100

**LPI Security Essentials** 

40 Questions Exam - 500 / 800 Cut Score - Duration of 60 minutes



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#### Know Your 020-100 Certification Well:

The 020-100 is best suitable for candidates who want to gain knowledge in the LPI Security Essentials. Before you start your 020-100 preparation you may struggle to get all the crucial Security Essentials materials like 020-100 syllabus, sample questions, study guide.

But don't worry the 020-100 PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the 020-100 syllabus?
- How many questions are there in the 020-100 exam?
- Which Practice test would help me to pass the 020-100 exam at the first attempt?

Passing the 020-100 exam makes you LPI Security Essentials. Having the Security Essentials certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

## LPI 020-100 Security Essentials Certification Details:

Exam Name	LPI Security Essentials
Exam Code	020-100
Exam Price	\$120 (USD)
Duration	60 mins
Number of Questions	40
Passing Score	500 / 800
Schedule Exam	Pearson VUE
Sample Questions	LPI Security Essentials Sample Questions
Practice Exam	LPI 020-100 Certification Practice Exam



# 020-100 Syllabus:

Topic	Details
	Security Concepts
	Weight: 1
	<b>Description:</b> The candidate should understand the importance of IT security. This includes understanding of essential security goals as well as understanding various actors and roles in the field of IT security.
	Key Knowledge Areas:
Goals, Roles and Actors	<ul> <li>Understanding of the importance of IT security</li> <li>Understanding of common security goals</li> <li>Understanding of common roles in security</li> <li>Understanding of common goals of attacks against IT systems and devices</li> <li>Understanding of the concept of attribution and related issues</li> <li>Partial list of the used files, terms, and utilities:</li> <li>Confidentiality, integrity, availability, non-repudiation</li> <li>Hackers, crackers, script kiddies</li> <li>Black hat and white hat hackers</li> <li>Accessing, manipulating or deleting data</li> <li>Interrupting services, extorting ransom</li> <li>Industrial espionage</li> </ul>
	Weight: 2
Risk Assessment and Management	<b>Description:</b> The candidate should understand how to find and interpret relevant security information. This includes understanding the risk of a security vulnerability and determining the need and urgency for a reaction.
	Key Knowledge Areas:



Topic	Details
	<ul> <li>Know common sources for security information</li> <li>Understanding of security incident classification schema and important types of security vulnerabilities</li> </ul>
	<ul> <li>Understanding of the concepts of security assessments and IT forensics</li> </ul>
	<ul> <li>Awareness of Information Security Management Systems (ISMS) and Information Security Incident Response Plans and Teams</li> </ul>
	Partial list of the used files, terms, and utilities:
	<ul><li>Common Vulnerabilities and Exposures (CVE)</li><li>CVE ID</li></ul>
	<ul><li>Computer Emergency Response Team (CERT)</li><li>Penetration testing</li></ul>
	Untargeted attacks and Advanced Persistent Threats (APT)
	<ul> <li>Zero-day security vulnerabilities</li> </ul>
	<ul> <li>Remote execution and explication of security vulnerabilities</li> </ul>
	Privilege escalation due to security vulnerabilities
	Weight: 2
Ethical Behavior	<b>Description:</b> The candidate should understand the technical, financial, and legal implications of their behavior when using digital infrastructure. This includes understanding the potential harm caused by using security tools. Furthermore, the candidate should understand common concepts in copyright and privacy laws.
	Key Knowledge Areas:
	Understanding the implications for others of actions taken related to security  Handling information about accurity and problition.
	<ul> <li>Handling information about security vulnerabilities responsibly</li> </ul>



Topic	Details
	Handling confidential information responsibly
	<ul> <li>Awareness of personal, financial, ecological, and social implication of errors and outages in information technology services</li> </ul>
	<ul> <li>Awareness of legal implications of security scans, assessments, and attacks</li> </ul>
	Partial list of the used files, terms, and utilities:
	Responsible Disclosure and Full Disclosure
	Bug Bounty programs
	Public and private law
	<ul> <li>Penal law, privacy law, copyright law</li> </ul>
	Liability, financial compensation claims
	Encryption
	Weight: 3
	<b>Description:</b> The candidate should understand the concepts of symmetric and asymmetric encryption as well as other types of commonly used cryptographic algorithms. Furthermore, the candidate should understand how digital certificates are used to associate cryptographic keys with individual persons and organizations.
Cryptography and	Key Knowledge Areas:
Cryptography and Public Key Infrastructure	<ul> <li>Understanding of the concepts of symmetric, asymmetric, and hybrid cryptography</li> <li>Understanding of the concept of Perfect Forward</li> </ul>
	<ul> <li>Secrecy</li> <li>Understanding of the concepts of hash functions, ciphers, and key exchange algorithms</li> </ul>
	<ul> <li>Understanding of the differences between end-to-end encryption and transport encryption</li> </ul>
	<ul> <li>Understanding of the concepts of Public Key Infrastructures (PKI), Certificate Authorities, and Trusted Root-CAs</li> </ul>



Topic	Details
	Understanding of the concepts X.509 certificates
	<ul> <li>Understanding of how X.509 certificates are requested and issued</li> </ul>
	Awareness of certificate revocation
	<ul> <li>Awareness of Let's Encrypt</li> </ul>
	<ul> <li>Awareness of important cryptographic algorithms</li> </ul>
	Partial list of the used files, terms, and utilities:
	Public Key Infrastructures (PKI)
	Certificate Authorities
	Trusted Root-CAs
	<ul> <li>Certificate Signing Requests (CSR) and certificates</li> </ul>
	<ul> <li>X.509 certificate fields: Subject, Issuer, Validity</li> </ul>
	<ul> <li>RSA, AES, MD5, SHA-256, Diffie  Hellman key exchange, Elliptic Curve Cryptography</li> </ul>
	Weight: 2
	<b>Description:</b> The candidate should understand the concepts of HTTPS. This includes verifying the identity of web servers and understanding common browser error messages related to security.
	Key Knowledge Areas:
Web Encryption	Understanding of the major differences between plain text protocols and transport encryption
,,	<ul> <li>Understanding of the concepts of HTTPS</li> </ul>
	<ul> <li>Understanding of important fields in X.509 certificates for the use with HTTPS</li> </ul>
	<ul> <li>Understanding of how X.509 certificates are associated with a specific web site</li> </ul>
	<ul> <li>Understanding of the validity checks web browsers perform on X.509 certificates</li> </ul>
	<ul> <li>Determining whether or not a website is encrypted, including common browser messages</li> </ul>



Partial list of the used files, terms, and utilities:
<ul> <li>HTTPS, TLS, SSL</li> <li>X.509 certificate fields: subject, Validity, subjectAltName</li> </ul>
Weight: 2
<b>Description:</b> The candidate should understand the concepts of OpenPGP and S/MIME for email encryption. This includes handling OpenPGP keys and S/MIME certificates as well as sending and receiving encrypted emails.
Key Knowledge Areas:
<ul> <li>Understanding of email encryption and email signatures</li> <li>Understanding of OpenPGP</li> <li>Understanding of S/MIME</li> <li>Understanding of the role of OpenPGP key servers</li> <li>Understanding of the role of certificates for S/MIME</li> <li>Understanding of how PGP keys and S/MIME certificates are associated with an email address</li> <li>Using Mozilla Thunderbird to send and receive encrypted email using OpenPGP and S/MIME</li> <li>Partial list of the used files, terms, and utilities:</li> <li>GnuPGP, GPG keys, key servers</li> <li>S/MIME and S/MIME certificates</li> </ul>
Weight: 2
Description: The candidate should understand the concepts of file encryption and storage device encryption. Furthermore, the candidate should be able to encrypt data stored on local storage devices and in the cloud.  Key Knowledge Areas:



Topic	Details
	Understanding of the concepts of data, file, and storage device encryption
	<ul> <li>Using VeraCrypt to store data in an encrypted container or an encrypted storage devices</li> </ul>
	<ul> <li>Understanding the core features of BitLocker</li> </ul>
	<ul> <li>Using Cryptomator to encrypt files stored in file storage cloud services</li> </ul>
	Partial list of used files, terms, and utilities:
	VeraCrypt
	BitLocker
	Cryptomator
	Device and Storage Security
	Weight: 2
	<b>Description:</b> The candidate should understand security aspects of hardware. This includes understanding the various types of computer devices as well as their major components. Furthermore, the candidate should understand the security implications of various devices that interact with a computer as well as the security implications of physical access to a device.
	Key Knowledge Areas:
Hardware Security	<ul> <li>Understanding of the major components of a computer</li> </ul>
	<ul> <li>Understanding of the smart devices and the Internet of Things (IoT)</li> </ul>
	<ul> <li>Understanding of the security implications of physical access to a computer</li> </ul>
	<ul> <li>Understanding of USB devices devices types, connections, and security aspects</li> </ul>
	<ul> <li>Understanding of Bluetooth devices types, connections, and security aspects</li> </ul>
	<ul> <li>Understanding of RFID devices types, connections,</li> </ul>



Topic	Details
	and security aspects
	Awareness of Trusted Computing
	Partial list of used files, terms, and utilities:
	<ul> <li>Processors, memory, storage, network adapters</li> <li>Tablets, smartphones, smart tvs, routers, printers smart home, alarm, IoT devices (e.g. light bulbs, thermostats, TVs)</li> <li>USB</li> <li>Bluetooth</li> <li>RFID</li> </ul>
	Weight: 2
	<b>Description:</b> The candidate should understand the security aspects of software. This includes securely installing software, managing software updates, and protecting software from unintended network connections.
	Key Knowledge Areas:
Application Security	<ul> <li>Understanding of common types of software</li> <li>Understanding of various sources for applications and ways to securely procure and install software</li> <li>Understanding of updates for firmware, operating systems, and applications</li> </ul>
	<ul> <li>Understanding of sources for mobile applications</li> <li>Understanding of common security vulnerabilities in software</li> </ul>
	Understanding of the concepts of local protective software
	Partial list of used files, terms, and utilities:
	<ul> <li>Firmware, operating systems, applications</li> <li>App stores</li> <li>Local packet filters, endpoint firewalls, application layer firewalls</li> </ul>



Topic	Details
	Buffer overflows, SQL injections
	Weight: 3
	<b>Description:</b> The candidate should understand the various types of malware. This includes understanding of how they are installed on a device, what effects they cause, and how to protect against malware.
	Key Knowledge Areas:
Malware	<ul> <li>Understanding of common types of malware</li> <li>Understanding of the concepts of rootkit and remote access</li> <li>Understanding of virus and malware scanners</li> <li>Awareness of the risk of malware used for spying, data exfiltration, and address books copies</li> </ul>
	Partial list of used files, terms, and utilities:
	<ul> <li>Viruses, ransomware, trojan malware, adware, cryptominers</li> <li>Backdoors and remote access</li> </ul>
	<ul> <li>File copying, keylogging, camera, microphone hijacking</li> </ul>
	Weight: 2
Data Availability	<b>Description:</b> The candidate should understand how to ensure the availability of their data. This includes storing data on appropriate devices and services as well as creating backups.
	Key Knowledge Areas:
	<ul> <li>Understanding of the importance of backups</li> <li>Understanding of common backup types and strategies</li> </ul>
	Understanding of the security implications of backups
	Creating and securely storing backups  Understanding of data storage, access, and sharing
	<ul> <li>Understanding of data storage, access, and sharing</li> </ul>



Topic	Details
	in cloud services
	<ul> <li>Understanding of the security implications of cloud storage and shared access in the cloud</li> </ul>
	<ul> <li>Awareness of the dependence on Internet connection and the synchronization of data between cloud services and local storage</li> </ul>
	Partial list of used files, terms, and utilities:
	Full, differential and incremental backups
	Backup retention
	File sharing cloud services
	Network and Service Security
	Weight: 4
	Description: The candidate should understand the concepts of computer networks and the Internet. This includes basic knowledge of various network media types, addressing, routing, and packet forwarding as well as understanding of the most important protocols used in the Internet.
	Key Knowledge Areas:
Networks, Network	<ul> <li>Understanding of the various types of network media and network devices</li> </ul>
Services and the Internet	<ul> <li>Understanding of the concepts of IP networks and the Internet</li> </ul>
	<ul> <li>Understanding of the concepts of routing and Internet Service Providers (ISPs)</li> </ul>
	<ul> <li>Understanding of the concepts of MAC and link-layer addresses, IP addresses, TCP and UDP ports, and DNS</li> </ul>
	Understanding of the concepts of cloud computing
	Partial list of used files, terms, and utilities:
	Wired networks, WiFi networks, cellular networks
	<ul> <li>Switches, Routers, Access Points</li> </ul>



Topic	Details
	Default Router
	Internet Service Provider
	• IPv4, IPv6
	TCP, UDP, ICMP, DHCP
	<ul> <li>DNS, DNS host names, forward DNS, reverse DNS</li> </ul>
	<ul> <li>Cloud computing</li> </ul>
	<ul> <li>Infrastructure as a Service (laaS)</li> </ul>
	<ul> <li>Platform as a Service (PaaS)</li> </ul>
	<ul> <li>Software as a Service (SaaS)</li> </ul>
	Weight: 3
	<b>Description:</b> The candidate should understand common security aspects of using networks and the Internet. This includes understanding of common security threats against networks and networked computers, approaches for mitigation, as well as the ability to securely connect to a wired or wireless network.
	Key Knowledge Areas:
Network and Internet	<ul> <li>Understanding of the implications of link layer access</li> <li>Understanding of the risks and secure use of WiFi networks</li> </ul>
Security	<ul> <li>Understanding of the concepts of traffic interception</li> <li>Understanding of common security threats in the</li> </ul>
	Internet along with approaches of mitigation
	Partial list of the used files, terms, and utilities:
	Link layer
	<ul> <li>Unencrypted and public WiFi</li> </ul>
	<ul> <li>WiFi security and encryption</li> </ul>
	WEP, WPA, WPA2
	Traffic interception
	<ul> <li>Man in the Middle attacks</li> </ul>
	<ul> <li>DoS and DDoS attacks</li> </ul>



Topic	Details
	Botnets
	Packet filters
Network Encryption and Anonymity	Weight: 3
	<b>Description:</b> The candidate should understand the concepts of virtual private networks (VPN). This includes using a VPN provider to encrypt transmitted data. Candidates should understand recognition and anonymity concepts when using the Internet as well as anonymization tools, such as TOR.
	Key Knowledge Areas:
	<ul> <li>Understanding of virtual private networks (VPN)</li> <li>Understanding of the concepts of end-to-end encryption</li> <li>Understanding anonymity and recognition in the Internet</li> <li>Identification due to link layer addresses and IP addresses</li> <li>Understanding of the concepts of proxy servers</li> <li>Understanding of the concepts of TOR</li> <li>Awareness of the Darknet</li> <li>Awareness of cryptocurrencies and their anonymity aspects</li> </ul> Partial list of used files, terms, and utilities:
	<ul> <li>Virtual Private Network (VPN)</li> <li>Public VPN providers</li> <li>Organization-specific VPN (e.g. company or university VPNs)</li> <li>End-to-end encryption</li> <li>Transfer encryption</li> <li>Anonymity</li> <li>Proxy servers</li> <li>TOR</li> </ul>



Topic	Details			
	Hidden service			
	• .onion			
	Blockchain			
Identity and Privacy				
	Weight: 3			
Identity and Authentication	<b>Description:</b> The candidate should understand common concepts on how to prove their identity when using online services. This includes using a password manager, multifactor authentication, and single sign-on, as well as being aware of common security threats regarding individual identities.			
	Key Knowledge Areas:			
	Understanding of the concepts of digital identities.			
	<ul> <li>Understanding of the concepts of authentication, authorization, and accounting</li> </ul>			
	<ul> <li>Understanding of the characteristics of secure password (e.g. length, special characters, change frequencies, complexity)</li> </ul>			
	Using a password manager			
	<ul> <li>Understanding of the concepts of security questions and account recovery tools</li> </ul>			
	<ul> <li>Understanding of the concepts of multi-factor authentication (MFA), including common factors</li> </ul>			
	<ul> <li>Understanding of the concepts of single sign-on (SSO) and social media logins</li> </ul>			
	Understanding of the role of email accounts for IT security			
	<ul> <li>Understanding of how passwords are stored in online services</li> </ul>			
	<ul> <li>Understanding of common attacks against passwords</li> </ul>			
	<ul> <li>Monitoring personal accounts for password leaks (e.g. search engine alerts for usernames and</li> </ul>			



Topic	Details
	password leak checkers)
	<ul> <li>Understanding of the security aspects of online banking and credit cards</li> </ul>
	Partial list of used files, terms, and utilities:
	<ul> <li>Online and offline password managers</li> <li>keepass2</li> <li>Single sign-on (SSO)</li> <li>Two-factor authentication (2FA) and multi-factor authentication (MFA)</li> <li>One-time passwords (OTP), time-based one-time passwords (TOTP)</li> <li>Authenticator applications</li> <li>Password hashing and salting</li> <li>Brute force attacks, directory attacks, rainbow table</li> </ul>
	attacks Weight: 2
	Description: The candidate should understand how to keep confidential information secret and ensure the confidentiality of digital communication. This includes recognizing attempts of phishing and social engineering, as well as using secure means of communication.
	Key Knowledge Areas:
Information Confidentiality and Secure Communication	<ul> <li>Understanding the implications and risks of data leaks and intercepted communication</li> <li>Understanding of phishing and social engineering and scamming</li> <li>Understanding the concepts of email spam filters</li> <li>Securely handling of received email attachments</li> <li>Sharing information securely and responsibly using email cloud shares and messaging services</li> <li>Using encrypted instant messaging</li> </ul> Partial list of the used files, terms, and utilities:



Торіс	Details
	<ul> <li>Phishing and social engineering</li> <li>Identity theft</li> <li>Scamming and scareware</li> <li>Email spam, email spam filtering</li> <li>Non-disclosure agreements (NDA)</li> <li>Information classification</li> </ul>
	Weight: 2  Description: The candidate should understand the importance of the confidentiality of personal information. This includes managing privacy settings in various online services and social media as well as being aware of common security threats regarding personal information.
	Key Knowledge Areas:
Privacy Protection	<ul> <li>Understanding of the importance of personal information</li> <li>Understanding of how personal information can be used for a malicious purpose</li> <li>Understanding of the concepts of information gathering, profiling, and user tracking</li> </ul>
	<ul> <li>Managing profile privacy settings on social media platforms and online services</li> </ul>
	<ul> <li>Understanding of the risk of publishing personal information</li> </ul>
	<ul> <li>Understanding of the rights regarding personal information (e.g. GDPR)</li> </ul>
	Partial list of the used files, terms, and utilities:
	<ul> <li>Stalking and cybermobbing</li> <li>HTTP cookies, browser fingerprinting, user tracking</li> <li>Script blockers and ad blockers in web browsers</li> <li>Profiles in online services and social media</li> <li>Contacts and privacy settings in social media</li> </ul>



### LPI 020-100 Sample Questions:

#### Question: 1

You work for a large company that has employees who need to access the company network from remote locations. Which of the following solutions would be the most appropriate for providing secure remote access?

- a) An organization-specific VPN
- b) Setting up an open Wi-Fi network
- c) Using plaintext email for communication
- d) Relying on FTP for file transfers

Answer: a

#### Question: 2

As the IT administrator of a company, you are responsible for implementing a cloud storage solution. You need to consider the potential issues related to the use of cloud services, especially concerning data synchronization and accessibility.

Which of the following should you be particularly aware of when deploying the cloud storage solution?

- a) Data loss prevention
- b) Encryption at rest
- c) Data redundancy
- d) Dependence on Internet connection

Answer: d

#### Question: 3

Which of the following activities is a potential threat to the confidentiality of personal information and involves collecting data from various sources, such as online services and social media, for malicious purposes?

- a) Information gathering
- b) Data mining
- c) Social engineering
- d) Two-factor authentication

Answer: a



#### Question: 4

You suspect that someone has gained unauthorized remote access to your computer. Which of the following should you do first?

- a) Delete all files on your computer
- b) Disconnect your computer from the internet
- c) Reboot your computer
- d) Run a malware scan using reputable software

Answer: b

#### Question: 5

Which of the following encryption methods is an example of symmetric encryption?

- a) RSA
- b) Elliptic Curve Cryptography
- c) AES (Advanced Encryption Standard)
- d) MD5

Answer: c

#### Question: 6

You find an RFID card on the ground outside your office building. What should you do with the card?

- a) Leave the card where it is and ignore it
- b) Use the card to gain access to the building
- c) Report the lost card to the building security office
- d) Take the card home and keep it for yourself

Answer: c

#### Question: 7

What is the term used to describe the unique identifier assigned to a user's web browser?

- a) HTTP cookies
- b) Script blockers
- c) Ad blockers
- d) Browser fingerprinting

Answer: d



#### Question: 8

What is a prevalent principle in copyright law that allows limited use of copyrighted material without requiring permission from the rights holder?

- a) Public domain
- b) Fair use
- c) Infringement
- d) Derivative work

Answer: b

#### Question: 9

How are passwords typically stored in online services?

- a) As encoded base64 strings
- b) Using password hashing and salting
- c) Using reversible encryption
- d) In plain text

Answer: b

#### Question: 10

Which of the following legal concepts is concerned with compensating someone for harm caused by a security breach?

- a) Public law
- b) Copyright law
- c) Financial compensation claims
- d) Liability

Answer: d



# Study Guide to Crack LPI Security Essentials 020-100 Exam:

- Getting details of the 020-100 syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the 020-100 exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the LPI provided training for 020-100 exam could be of much help.
   If there is specific training for the exam, you can discover it from the link above.
- Read from the 020-100 sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on 020-100 practice tests is must. Continuous practice will make you an expert in all syllabus areas.

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