

COMPTIA CAS-003

CompTIA CASP+ Certification Questions & Answers

Exam Summary – Syllabus –Questions

CAS-003 <u>CompTIA Advanced Security Practitioner (CASP+)</u> 90 Questions Exam – Duration of 165 minutes



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Know Your CAS-003 Certification Well:

The CAS-003 is best suitable for candidates who want to gain knowledge in the CompTIA Cybersecurity. Before you start your CAS-003 preparation you may struggle to get all the crucial CASP+ materials like CAS-003 syllabus, sample questions, study guide.

But don't worry the CAS-003 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 CAS-003 syllabus?
- How many questions are there in the CAS-003 exam?
- Which Practice test would help me to pass the CAS-003 exam at the first attempt?

Passing the CAS-003 exam makes you CompTIA Advanced Security Practitioner (CASP+). Having the CASP+ certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

Exam Name	CompTIA Advanced Security Practitioner (CASP+)
Exam Code	CAS-003
Exam Price	\$466 (USD)
Duration	165 mins
Number of Questions	90
Passing Score	Pass / Fail
Book / Training	CASP+ CAS-003
Schedule Exam	Pearson VUE
Sample Questions	CompTIA CASP+ Sample Questions
Practice Exam	CompTIA CAS-003 Certification Practice Exam

CompTIA CAS-003 CASP+ Certification Details:

CAS-003 Syllabus:

Торіс	Details
	 Policy and process life cycle management New business
	 New business New technologies Environmental changes Regulatory requirements Emerging risks
	 Support legal compliance and advocacy by partnering with human resources, legal, management and other entities Understand common business documents to support cocurity.
Compare and contrast security, privacy policies and procedures based on organizational requirements.	 security Risk assessment (RA) Business impact analysis (BIA) Interoperability agreement (IA) Interconnection security agreement (ISA) Memorandum of understanding (MOU) Service-level agreement (SLA) Operating-level agreement (NDA) Business partnership agreement (BPA) Master service agreement (MSA) Research security requirements for contracts Request for proposal (RFP) Request for quote (RFQ) Request for information (RFI) Support the development of policies containing standard security practices Separation of duties Job rotation Mandatory vacation Least privilege Incident response Forensic tasks Employment and termination procedures Continuous monitoring Training and awareness for users Auditing requirements and frequency





Details
4. MTBF 13. IT governance
1. Adherence to risk management frameworks
14. Enterprise resilience
1. Review effectiveness of existing security controls
 Gap analysis Lessons learned After-action reports 2. Reverse <u>engineer</u> /deconstruct existing solutions 3. Creation, collection and analysis of metrics
1. KPIs 2. KRIs
 4. Prototype and test multiple solutions 5. Create benchmarks and compare to baselines 6. Analyze and interpret trend data to anticipate cyber defense needs 7. Analyze security solution metrics and attributes to ensure they meet business needs
 Performance Latency Scalability Capability Usability Maintainability Availability Recoverability ROI TCO
8. Use judgment to solve problems where the most secure solution is not feasible
rprise Security Architecture 25%
 Physical and virtual network and security devices UTM



Торіс	Details
concepts and architectures	
to meet security	3. NIDS/NIPS
requirements.	4. INE
	5. NAC
	6. SIEM 7. Switch
	8. Firewall
	9. Wireless controller
	10. Router
	11. Proxy
	12. Load balancer
	13. HSM
	14. MicroSD HSM
	2. Application and protocol-aware technologies
	1. WAF
	2. Firewall
	3. Passive vulnerability scanners
	4. DAM
	3. Advanced network design (wired/wireless)
	1. Remote access VPN
	IPSec
	SSL/TLS
	SSH
	RDP
	VNC
	VDI
	Reverse proxy 2. IPv4 and IPv6 transitional technologies
	3. Network authentication methods
	4. 802.1x
	5. Mesh networks
	6. Placement of fixed/ <u>mobile</u> devices
	7. Placement of hardware and applications
	4. Complex network security solutions for data flow
	1. DLP
	2. Deep packet inspection
	3. Data flow enforcement
	4. Network flow (S/flow)
	5. Data flow diagram



Торіс	Details
	 Secure configuration and baselining of networking and security components Software-defined networking Network management and monitoring tools
	 Alert definitions and rule <u>writing</u> Tuning alert thresholds Alert fatigue
	8. Advanced configuration of routers, switches and other network devices
	 Transport security Trunking security Port security Route protection DDoS protection Remotely triggered black hole
	9. Security zones
	 DMZ Separation of critical assets Network segmentation
	10. Network access control
	 Quarantine/remediation Persistent/volatile or non-persistent agent Agent vs. agentless
	11. Network-enabled devices
	 System on a chip (SoC) Building/home automation systems IP video HVAC controllers Sensors Physical access control systems A/V systems Scientific/industrial equipment
	12. Critical infrastructure
	 Supervisory control and data acquisition (SCADA) Industrial control systems (ICS)



Торіс	Details
Торіс	 Trusted OS (e.g., how and when to use it) SELinux SEAndroid TrustedSolaris Least functionality Endpoint security software
	 Anti-malware Antivirus Anti-spyware Spam filters Patch management HIPS/HIDS Data loss prevention Host-based firewalls Log monitoring Endpoint detection response
Analyze a scenario to integrate security controls for host devices to meet security requirements.	 Host hardening Standard operating environment/ configuration baselining Application whitelisting and blacklisting Security/group policy implementation Command shell restrictions Patch management Manual Automated Scripting and replication Configuring dedicated interfaces Out-of-band management ACLs Management interface External I/O restrictions USB Wireless Bluetooth NFC IrDA RF 802.11 RFID Drive mounting Drive mounting



Торіс	Details
	Webcam Recording mic Audio output SD port HDMI port 7. File and disk encryption 8. Firmware updates
	4. Boot loader protections
	 Secure boot Measured launch Integrity measurement architecture BIOS/UEFI Attestation services TPM Vulnerabilities associated with hardware Terminal services/application delivery services
	1. Enterprise mobility management
Analyze a scenario to integrate security controls for <u>mobile</u> and small form factor devices to meet security requirements.	 Containerization Configuration profiles and payloads Personally owned, corporate-enabled Application wrapping Remote assistance access VNC Screen mirroring Application, content and data management Over-the-air updates (software/firmware) Remote wiping SCEP BYOD COPE VPN Application permissions Side loading Unsigned apps/system apps Context-aware management Geolocation/geofencing User behavior Security restrictions Time-based restrictions Security implications/privacy concerns

Торіс	Details
Topic	Details 1. Data storage Non-removable storage Removable storage Cloud storage Transfer/backup data to uncontrolled storage 2. USB OTG 3. Device loss/theft 4. Hardware anti-tamper eFuse 5. TPM 6. Rooting/jailbreaking 7. Push notification services 8. Geotagging 9. Encrypted instant messaging apps 10. Tokenization 11. OEM/carrier Android fragmentation 12. Mobile payment NFC-enabled Inductance-enabled Mobile wallet Peripheral-enabled payments (credit card reader) 13. Tethering USB Spectrum management Bluetooth 3.0 vs. 4.1 14. Authentication Swipe pattern Gesture Pin code Biometric Facial Fingerprint Iris scan 15. Malware 16. Unauthorized domain bridging 17. Baseband radio/SOC 18. Augmented reality 19. SMS/MMS/messaging 3. Wearable technology 1. Devices
	Cameras Watches Fitness devices Glasses

Торіс	Details
	 Medical sensors/devices Headsets Security implications Unauthorized remote activation/ deactivation of devices or features Encrypted and unencrypted communication concerns Physical reconnaissance Personal data theft Health privacy Digital forensics of collected data
	1. Application security design considerations
	 Secure: by design, by default, by deployment Specific application issues
Given software vulnerability scenarios, select appropriate security controls.	 Unsecure direct object references XSS Cross-site request forgery (CSRF) Click-jacking Session management Input validation SQL injection Improper error and exception handling Privilege escalation Improper storage of sensitive data Fuzzing/fault injection Secure cookie storage and transmission Buffer overflow Memory leaks Integer overflows Race conditions Time of check Time of use Resource exhaustion Geotagging Data remnants Use of third-party libraries Code reuse Application sandboxing Secure encrypted enclaves Database activity monitor Web application firewalls Client-side processing vs. server-side processing



Торіс	Details
	 JSON/REST Browser extensions ActiveX Java applets HTML5 AJAX SOAP State management JavaScript Operating system vulnerabilities Firmware vulnerabilities
Ente	erprise Security Operations 20%
Given a scenario, conduct a security assessment using the appropriate methods.	 Methods Malware sandboxing Memory dumping, runtime debugging Reconnaissance Fingerprinting Code review Social engineering Pivoting Open source intelligence Social media Whois Routing tables DNS records Search engines Types Penetration testing Black box White box Gray box Vulnerability assessment Tabletop exercises Internal and external audits Color team exercises Red team Blue team White team



Торіс	Details
Analyze a scenario or output, and select the appropriate tool for a security assessment.	 Network tool types Port scanners Vulnerability scanners Protocol analyzer Wired Wireless SCAP scanner Network enumerator Fuzzer HTTP interceptor Exploitation tools/frameworks Visualization tools Log reduction and analysis tools Host tool types Password cracker Vulnerability scanner Command line tools Local exploitation tools/frameworks SCAP tool File integrity monitoring Log analysis tools Physical security tools Lock picks RFID tools IR camera
Given a scenario, implement incident response and recovery procedures.	 E-discovery Electronic inventory and asset control Data retention policies Data recovery and storage Data ownership Data handling Legal holds Data breach Detection and collection Data analytics



Торіс	Details
	 2. Mitigation Minimize Isolate 3. Recovery/reconstitution 4. Response 5. Disclosure
	3. Facilitate incident detection and response
	 Hunt teaming Heuristics/behavioral analytics Establish and review system, audit and security logs
	4. Incident and emergency response
	 Chain of custody Forensic analysis of compromised system Continuity of operations Disaster recovery Incident response team Order of volatility
	5. Incident response support tools
	 1. dd 2. tcpdump 3. nbtstat 4. netstat 5. nc (Netcat) 6. memdump 7. tshark 8. foremost
	6. Severity of incident or breach
	 Scope Impact Cost Downtime Legal ramifications
	7. Post-incident response
	 Root-cause analysis Lessons learned After-action report



Торіс	Details
Technical I	Integration of Enterprise Security 23%
	 Adapt data flow security to meet changing business needs Standards
	 Open standards Adherence to standards Competing standards Lack of standards De facto standards
	3. Interoperability issues
Given a scenario,	 Legacy systems and software/current systems Application requirements Software types In-house developed Commercial Tailored commercial Open source Standard data formats Protocols and APIs
integrate hosts, storage, networks and applications	4. Resilience issues
into a secure enterprise architecture.	 Use of heterogeneous components Course of action automation/orchestration Distribution of critical assets Persistence and non- persistence of data Redundancy/high availability Assumed likelihood of attack
	5. Data security considerations
	 Data remnants Data aggregation Data isolation Data ownership Data sovereignty Data volume
	6. Resources provisioning and deprovisioning
	 Users Servers Virtual devices

Торіс	Details
	 Applications Data remnants
	 7. Design considerations during mergers, acquisitions and demergers/divestitures 8. Network secure segmentation and delegation 9. Logical deployment diagram and corresponding physical deployment diagram of all relevant devices 10. Security and privacy considerations of storage integration 11. Security implications of integrating enterprise applications
	 CRM ERP CMDB CMS Integration enablers Directory services DNS SOA ESB
	 Technical deployment models (outsourcing/insourcing/ managed services/partnership)
Given a scenario, integrate cloud and virtualization technologies into a secure enterprise architecture.	 Cloud and virtualization considerations and hosting options Public Private Hybrid Community Multi-tenancy Single tenancy On-premise vs. hosted Cloud service models SaaS IaaS PaaS
	2. Security advantages and disadvantages of virtualization
	 Type 1 vs. Type 2 hypervisors Container-based vTPM Hyperconverged infrastructure Virtual desktop infrastructure



Торіс	Details
	6. Secure enclaves and volumes
	3. Cloud augmented security services
	 Anti-malware Vulnerability scanning Sandboxing Content filtering Cloud security <u>broker</u> Security as a service Managed security service providers
	 Vulnerabilities associated with comingling of hosts with different security requirements
	 VMEscape Privilege elevation Live VM migration Data remnants
	5. Data security considerations
	 Vulnerabilities associated with a single server hosting multiple data types Vulnerabilities associated with a single platform hosting multiple data types/owners on multiple virtual machines
	6. Resources provisioning and deprovisioning
	 Virtual devices Data remnants
	1. Authentication
	 Certificate-based authentication Single sign-on 802.1x Context-aware authentication Push-based authentication Authorization
objectives.	1. OAuth 2. XACML



Торіс	Details
	3. SPML
	 3. Attestation 4. Identity proofing 5. Identity propagation 6. Federation
	 SAML OpenID Shibboleth WAYF
	7. Trust models
	 RADIUS configurations LDAP AD
	1. Techniques
Given a scenario, implement cryptographic techniques.	 Key stretching Hashing Digital signature Message authentication Code signing Pseudo-random number generation Perfect forward secrecy Data-in-transit encryption Data-in-memory/processing Data-at-rest encryption Disk Block File Record Steganography
	2. Implementations
	 Crypto modules Crypto processors Cryptographic service providers DRM Watermarking GPG SSL/TLS SSH S/MIME

Торіс	Details
	 Cryptographic applications and proper/improper implementations Strength Performance Feasibility to implement Interoperability <u>Stream</u> vs. block PKI Wild card OCSP vs. CRL Issuance to entities Key escrow Certificate Tokens Stapling Pinning Cryptocurrency/blockchain <u>Mobile</u> device encryption considerations Elliptic curve cryptography P-256 vs. P-384 vs. P521
Given a scenario, select the appropriate control to secure communications and collaboration solutions.	 Remote access Resource and services Desktop and application sharing Remote assistance Unified collaboration tools Conferencing Web Video Audio Storage and document collaboration tools Unified communication Instant messaging Presence Email Telephony and VoIP integration Collaboration sites Social media Cloud-based



Торіс	Details
Research,	Development and Collaboration 13%
Given a scenario, apply research methods to determine industry trends and their impact to the enterprise.	 Perform ongoing research Best practices New technologies, security systems and services Technology evolution (e.g., RFCs, ISO) Threat intelligence Latest attacks Knowledge of current vulnerabilities and threats Zero-day mitigation controls and remediation Threat model Research security implications of emerging business tools Evolving social media platforms Integration within the business Big Data AI/machine learning Global IA industry/community Conventions/conferences Research consultants/vendors Threat <u>actor</u> activities Emerging threat sources
Given a scenario, implement security activities across the technology life cycle.	 Systems development life cycle Requirements Acquisition Test and evaluation Commissioning/decommissioning Operational activities

Торіс	Details
	 Application security frameworks Software assurance Standard libraries Industry-accepted approaches Web services security (WS-security) Forbidden coding techniques NX/XN bit use ASLR use Code quality Code analyzers Fuzzer Static Dynamic Development approaches DevOps Security implications of agile, <u>waterfall</u> and spiral software development methodologies Continuous integration Versioning Secure coding standards Documentation Security requirements traceability matrix (SRTM) Requirements definition System design document Testing plans Validation and acceptance testing Regression User acceptance testing Unit testing Integration testing Peer review
	 3. Adapt solutions to address: 1. Emerging threats 2. Disruptive technologies
	 Security trends Asset management (inventory control)
	1. Interpreting security requirements and goals to
Explain the importance of	 Interpreting security requirements and goals to communicate with stakeholders from other disciplines
interaction across diverse business units to achieve security goals.	 Sales staff Programmer Database administrator Network administrator



Торіс	Details
	 Management/executive management Financial Human resources Emergency response team Facilities manager Physical security manager Legal counsel
	 Provide objective guidance and impartial recommendations to staff and senior management on security processes and controls Establish effective collaboration within teams to implement secure solutions Governance, risk and compliance committee

CompTIA CAS-003 Sample Questions:

Question: 1

A power outage is caused by a severe thunderstorm and a facility is on generator power. The CISO decides to activate a plan and shut down non-critical systems to reduce power consumption.

Which of the following is the CISO activating to identify critical systems and the required steps?

- a) BIA
- b) CERT
- c) IRP
- d) COOP

Answer: c

Question: 2

Which of the following describes a contract that is used to define the various levels of maintenance to be provided by an external business vendor in a secure environment?

- a) NDA
- b) MOU
- c) BIA
- d) SLA

Answer: d



During the decommissioning phase of a hardware project, a security administrator is tasked with ensuring no sensitive data is released inadvertently.

All paper records are scheduled to be shredded in a crosscut shredder, and the waste will be burned. The system drives and removable media have been removed prior to e-cycling the hardware.

Which of the following would ensure no data is recovered from the system drives once they are disposed of?

- a) Overwriting all HDD blocks with an alternating series of data
- b) Physically disabling the HDDs by removing the drive head
- c) Demagnetizing the hard drive using a degausser
- d) Deleting the UEFI boot loaders from each HDD

Answer: c

Question: 4

The Chief Information Security Officer (CISO) is concerned that certain systems administrators with privileged access may be reading other users' emails. Review of a tool's output shows the administrators have used web mail to log into other users' inboxes.

Which of the following tools would show this type of output?

- a) Log analysis tool
- b) Password cracker
- c) Command-line tool
- d) File integrity monitoring tool

Answer: a

Question: 5

Which of the following is the GREATEST security concern with respect to BYOD?

- a) The filtering of sensitive data out of data flows at geographic boundaries.
- b) Removing potential bottlenecks in data transmission paths.
- c) The transfer of corporate data onto mobile corporate devices.
- d) The migration of data into and out of the network in an uncontrolled manner.

Answer: d



A pharmaceutical company is considering moving its technology operations from on-premises to externally-hosted to reduce costs while improving security and resiliency.

These operations contain data that includes the prescription records, medical doctors' notes about treatment options, and the success rates of prescribed drugs.

The company wants to maintain control over its operations because many custom applications are in use.

Which of the following options represent the MOST secure technical deployment options?

(Select THREE).

- a) Single tenancy
- b) Multi-tenancy
- c) Community
- d) Public
- e) Private
- f) Hybrid
- g) Saas
- h) laas
- i) Paas

Answer: a, e, h

Question: 7

A Chief Information Security Officer (CISO) is reviewing the controls in place to support the organization's vulnerability management program. The CISO finds patching and vulnerability scanning policies and procedures are in place.

However, the CISO is concerned the organization is siloed and is not maintaining awareness of new risks to the organization. The CISO determines systems administrators need to participate in industry security events.

Which of the following is the CISO looking to improve?

- a) Vendor diversification
- b) System hardening standards
- c) Bounty programs
- d) Threat awareness
- e) Vulnerability signatures



During a security assessment, activities were divided into two phases: internal and external exploitation. The security assessment team set a hard time limit on external activities before moving to a compromised box within the enterprise perimeter.

Which of the following methods is the assessment team most likely to employ NEXT?

- a) Pivoting from the compromised, moving laterally through the enterprise, and trying to exfiltrate data and compromise devices.
- b) Conducting a social engineering attack attempt with the goal of accessing the compromised box physically.
- c) Exfiltrating network scans from the compromised box as a precursor to social media reconnaissance
- d) Open-source intelligence gathering to identify the network perimeter and scope to enable further system compromises.

Answer: a

Question: 9

While attending a meeting with the human resources department, an organization's information security officer sees an employee using a username and password written on a memo pad to log into a specific service.

When the information security officer inquires further as to why passwords are being written down, the response is that there are too many passwords to remember for all the different services the human resources department is required to use.

Additionally, each password has specific complexity requirements and different expiration time frames.

Which of the following would be the BEST solution for the information security officer to recommend?

- a) Utilizing MFA
- b) Implementing SSO
- c) Deploying 802.1X
- d) Pushing SAML adoption
- e) Implementing TACACS

Answer: b



A security engineer is managing operational, excess, and available equipment for a customer. Three pieces of expensive leased equipment, which are supporting a highly confidential portion of the customer network, have recently been taken out of operation. The engineer determines the equipment lease runs for another 18 months.

Which of the following is the BEST course of action for the engineer to take to decommission the equipment properly?

- a) Remove any labeling indicating the equipment was used to process confidential data and mark it as available for reuse.
- b) Return the equipment to the leasing company and seek a refund for the unused time.
- c) Redeploy the equipment to a less sensitive part of the network until the lease expires.
- d) Securely wipe all device memory and store the equipment in a secure location until the end of the lease.

Answer: d

Study Guide to Crack CompTIA CASP+ CAS-003 Exam:

- Getting details of the CAS-003 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 CAS-003 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 CompTIA provided training for CAS-003 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 CAS-003 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 CAS-003 practice tests is must. Continuous practice will make you an expert in all syllabus areas.



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