Defence & Security · GS - III

Cyberattacks on critical government and defence infrastructure pose a challenge to national security. Examine the vulnerabilities involved and suggest measures to strengthen cyber resilience.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 28/11/2026	GS - III	Defence & Security

MARKS	WORD LIMIT
15	~250 words

Answer Hint

Cybersecurity, critical information infrastructure, defence networks, cloud computing, cyber espionage, Zero Trust, encryption, incident response, CERT-In

Model Answer

The increasing dependence on cloud computing, digital communication and networked defence systems has expanded the attack surface of national security infrastructure. Cyberattacks can compromise sensitive information, disrupt operations and weaken institutional confidence.

Major vulnerabilities

1. **Data breaches:** Weak authentication and inadequate access controls may expose classified or sensitive information.
2. **Supply-chain risks:** Third-party software and service providers can become entry points for cyber intrusions.
3. **Cloud vulnerabilities:** Misconfigured systems, insecure interfaces and inadequate monitoring can expose government platforms.
4. **Advanced threats:** State-sponsored groups may employ malware, phishing and persistent intrusion techniques for espionage or disruption.

5. **Operational disruption:** Attacks on critical systems can affect defence preparedness and essential public services.

Measures to strengthen resilience

- Adopt Zero Trust architecture and multi-factor authentication.
- Strengthen encryption, network segmentation and continuous monitoring.
- Conduct regular security audits and vulnerability assessments.
- Establish rapid incident-response and recovery mechanisms.
- Improve coordination among defence agencies, CERT-In and private technology providers.
- Develop indigenous cybersecurity capabilities and skilled personnel.

Conclusion

Cyber resilience requires more than preventing individual attacks. Continuous threat monitoring, secure infrastructure, institutional coordination and rapid recovery capabilities are essential for protecting national security in the digital era.

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