Science & Technology · GS - III

Cybersecurity has become essential for maintaining trust in India's digital banking ecosystem. Examine the major cyber risks facing banks and suggest measures to strengthen the security of banking data.

EXAM YEAR	PAPER	SUBJECT
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MARKS	WORD LIMIT
10	~150 words

Answer Hint

AI-driven fraud; data breaches; encryption; security operations centres; API vulnerabilities; third-party risks; regulatory oversight; cyber awareness; incident response

Model Answer

Introduction

The rapid digitisation of banking has improved financial inclusion and transaction efficiency but has also increased exposure to cyberattacks, data theft and AI-enabled fraud. Protecting banking data is therefore essential for financial stability and public trust.

Major Cyber Risks

Banks face phishing, identity theft, ransomware, credential compromise, insecure application interfaces and vulnerabilities in outsourced technology systems. AI can make fraudulent communications more convincing and enable sophisticated social engineering.

Measures to Strengthen Security

Banks should establish continuously monitored Security Operations Centres, adopt strong encryption and multi-factor authentication, conduct regular API security audits and maintain rigorous third-party risk controls. Timely software updates, independent security testing, employee training and effective incident-response plans are equally important.

The RBI and other relevant institutions should promote proportionate cybersecurity standards, regulatory compliance and timely reporting of significant incidents. Customers must also be educated about suspicious links, impersonation and fraudulent requests for credentials.

Conclusion

A resilient digital banking system requires technology, regulation and public awareness to work together. Continuous monitoring, accountability and rapid incident response can strengthen financial-sector resilience and protect citizens' trust in digital payments.

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