



Mains Practice Question

Q. “Digital India requires strong focus on cyber security.” Discuss the challenges faced by cyber security and suggest ways to increase cyber expertise in India. (250 words)

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Approach

- In introduction, write the significance of cyber security in the present times, especially when there is an emphasis on “Digital India”.
- Discuss the challenges faced by cybersecurity in India.
- Suggest ways to increase cyber expertise in India to tackle such challenges.

Introduction

Digital India aims to transform India into a digitally empowered society and knowledge economy. However, the transition to a Digital India comes with a new set of vulnerabilities.

Vulnerabilities of cyberspace in India:

- India ranks 3rd in terms of the highest number of internet users in the world after USA and China.
- The Indian Computer Emergency Response Team (CERT-In) has reported a steep four-fold rise of cybersecurity incidents in a year (2017 to 2018).
- Some of the important examples of cyber-attacks are- **Union Bank Of India Heist** (2016), **Wannacry Ransomware** (2017), **Data Theft At Zomato** (2017), **PETYA Ransomware** (2017) etc.

Thus, Cyber Security becomes very significant in protecting our digital space from attack, damage, misuse and economic espionage.

Body

'Digital India' dream requires a strong focus on cybersecurity more than ever before, however, our cybersecurity is marred by several challenges.

- **Lack of national-level architecture for Cybersecurity:** There is a lack of unified efforts to secure Critical Infrastructure of the public as well as the private sphere. This reduces the capability of security architecture to assess threats and tackle them effectively, in a coordinated manner.
- **Shortage of trained workforce:** Although India is rife with a young workforce with considerable IT prowess, there is a dearth of talent when it comes to specific niches, such as Cyber Security. The demand for talented and skilled labour far outgrows supply.
- **Lack of high-end secured devices:** In India, less than 1% of mobile phone users have access to mobile phones with higher security norms. With varying income groups in India, not everyone can afford high end secured phones and this increases vulnerability.
- **Imported hardwares may increase cyber threats:** Most equipment and technology for setting up Cyber Security infrastructure in India are currently procured from global sources and their embedded softwares may increase the cyber security threats.

- **Lack of awareness:** There is a lack of awareness about cyber fraud, cyber laws and regulations at both corporate levels as well as individual levels.
- Cyberspace, as it always keeps evolving, has inherent vulnerabilities that cannot be removed.

Measures to enhance cybersecurity expertise of India

- **Updation of outdated policy:** India needs to refresh its National Cyber Security Policy that must be in sync with present-day technological and ecosystem realities.
 - India's cybersecurity framework should be able to protect against intrusions at all levels in the public and private sector.
- **Whole of Government' Approach:** It is needed to define roles and responsibilities for oversight and implementation across implementation agencies. This will enable strong intra-government coordination on cybersecurity issues.
 - Also, there is a need to enhance cybersecurity capacity at the state level.
- **Creating skilled Human Resource:** Skilled and trained workforce is key to better cybersecurity in the country. They can be able to create a safe and secured cyber architecture.
- **Cooperation with private sectors:** It required budgetary allocations and opportunities for raising additional resources, through the involvement of the private sector, toward meeting the cybersecurity challenge.

Conclusion

The digital economy today comprises 14-15% of India's total economy and is targeted to reach 20% by 2024. India's future economic prospects depend very much on cyber security. Thus, it is imperative that we take the necessary steps to make India's cyberspace safe and secured with expertise in cybersecurity.