Science & Technology · GS - III

“The debate over satellite communication spectrum allocation in India highlights the challenge of balancing fair competition, technological innovation and public interest. Discuss.”

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 16/10/2026	GS - III	Science & Technology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Spectrum Allocation, Spectrum Auction vs Administrative Allocation, Level Playing Field, Reliance Jio, Starlink, TRAI, Telecommunications Act 2023, Satellite Communication, Telecom Sector Competition, Digital Divide, Rural Connectivity, Regulatory Neutrality, Consumer Welfare, Ease of Doing Business

Model Answer

Introduction

Satellite communication is emerging as an important component of India's digital infrastructure. The debate over spectrum allocation between traditional telecom operators and satellite internet providers highlights the need for a fair and technology-neutral regulatory framework.

Main Body

Key issues:

1. **Fair competition:** Telecom operators argue that they invest heavily in purchasing spectrum through auctions, whereas administrative allocation to satellite providers may create differences in costs and regulatory conditions.

2. **Technological differences:** Satellite services use shared spectrum and have different technical and operational characteristics from terrestrial mobile networks, making a uniform allocation approach difficult.
3. **Digital inclusion:** Satellite internet can connect remote, mountainous and underserved areas where conventional networks are expensive to deploy.
4. **Regulatory balance:** The government must consider efficient spectrum use, competition, consumer affordability, national security and investment incentives.

Way forward:

1. Adopt transparent and predictable spectrum-allocation rules.
2. Follow the applicable legal framework, including the Telecommunications Act, 2023.
3. Ensure proportionate regulatory obligations while accounting for technological differences.
4. Strengthen competition safeguards and protect consumer interests.

Conclusion

India needs a balanced, transparent and technology-neutral spectrum policy that promotes innovation, fair competition and affordable digital connectivity without compromising efficient spectrum utilisation or public interest.

BECOME IAS
AI POWERED UPSC PREP