GS-III Awareness in the fields of IT, Space, Computers, Robotics, Nano-Technology, Bio-Technology

1. **Deep technologies hold the key to social development as well as data security, but India's progress in this area has been slow. Critically Analyze.**

Why this Question?

- While TCS and Infosys have established themselves as the global powerhouses in the IT services space, there are no success stories from India when it comes to product innovation in Deep Technology.

Key Demands of Question:

- Explain the importance of the Deep technologies to improve the social development of the country and addressing the data sovereignty issues.
- Mention the statistics about India's progress in this arena and also mention why its progress has been slow over the years.
- Discuss the various measures and government interventions to improve the start-ups in the Deep Technologies.

Directive word:

Critically Analyze:

- When asked to analyze, you have to examine methodically the structure or nature of the topic by separating it into component parts and present them as a whole in a summary. When 'critically' is suffixed or prefixed to a directive, one needs to look at the good and bad of the topic and give a fair judgement.
- Whenever it is asking Critically Examine, Critically Comment or Critically Analyse just remember that you have to write both pros and cons and give a fair, unbiased or value loaded judgement. It should always give a closure feeling while examiner reading the answer.

Structure of Answer:

Introduction:

- Explain what are deep technologies (examples are Artificial Intelligence, Internet of things, AR/VR, etc) and its importance for the development of the country.

Body:

- Discuss elaborately about the significance of the deep technologies in the social development of the country. For examples, AI is used in Education, Health, etc.

- Analyse how the development of the deep technologies helps to achieve data security for the Nation. Mention data localisation and breach of data of various MNCs like Facebook, pesagus spyware, etc.

- Discuss the various reasons for the slow growth of the deep technologies in India. For example, India's Innovation is mainly replicating the Silicon Valley like flipkart for Amazon, ola for Uber, etc.

- Mention the government initiatives regarding the development of the deep technologies. For example, Start-Up Scheme, NITI Aayog policy on Artificial Intelligence, etc.

Conclusion:

- Conclude with the way forward measure to increase the process of development in deep technologies and its importance to address the social problems and data sovereignty.