

UPSC

Answer Questions in NOT MORE THAN the Word Limit specified for each in the Parenthesis.
Content of the Question is more important than length.
(Specimen Answer Booklet - For Practice Purpose Only)

उम्मीदवारों को
इस हाशिए में
नहीं लिखना
चाहिए
Candidates
must not
write on this
margin

- Q. In the context of climatic conditions, there is a need to reinvent Indian Agriculture through Internet of things and Artificial Intelligence. Elaborate.
- ↳ The Indian agri ecosystem has gone through a rapid transformation made possible due to emergence of agtech segment.
 - ↳ Agriculture sector → worth of \$370 Bn remain primary source of livelihood, contributing 19.9% of 2021 to National GDP.
 - ↳ Reinvent Indian Agriculture through AI, IoT
 - ↳ Government initiative → National e-governance plan in Agriculture for funding modern technologies including AI, ML, drones and Blockchain
 - ↳ offering a mix of hardware and software, services to help farmers improve crop yield.
 - ↳ Track the quality of produce while tracing the produce across the value chain transchain based.
 - ↳ Applications
 - ↳ Crop and soil health Monitoring → leveraging Sensors and various IoT based technologies to monitor crop and soil health predictive analytics, used to predict optimal sowing time to sow seeds, get alerts on risks from pest attacks

(Please do not write anything except the question number in this space.)
कृपया इस स्थान में प्रश्न संख्या के अतिरिक्त कुछ न लिखें।

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↳ Supply chain efficiencies → using real time data analytics from multiple source to build an efficient and smart supply chain.

↳ Easily check the quality and quantity of the crops and enable Digital professional warehouse management solution with instant transparent, & auditable agri quality.

↳ Farmers can mitigate damage and subsequent costs in a timely manner.

↳ Positive impact

↳ Tremendous growth potential in India's overall economy, it can help further the development of farmers, consumers & enterprises.

↳ Way forward

↳ This seen as a starting point for the penetration of advanced technologies like AI, IoT and blockchain in Agriculture Eco-System.

↳ These collective technologies come as a great boon to agriculture sector which is heavily reliant on unpredictable climatic conditions.