Indian Economy · GS - III

Assess the role of specialised agricultural education in modernising India's agricultural sector.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 24/11/2026	GS - III	Indian Economy

MARKS	WORD LIMIT
15	~250 words

Answer Hint

Agricultural innovation, skill development, precision farming, agribusiness, climate resilience, employment generation

Model Answer

Introduction

Agriculture in India faces challenges such as climate variability, fragmented landholdings, low productivity and changing market requirements. Specialised agricultural education can help address these challenges by developing a skilled and technology-oriented workforce.

Role in Agricultural Modernisation

1. **Technological Advancement:** Training in precision farming, remote sensing, drones and artificial intelligence can improve farm productivity and resource-use efficiency.

2. **Research and Innovation:** Specialised programmes strengthen scientific research in crop improvement, biotechnology, soil health and pest management.

3. **Climate-resilient Agriculture:** Education in sustainable farming, water conservation and climate adaptation can reduce agricultural vulnerability.

4. **Agribusiness Development:** Knowledge of supply chains, food processing, agricultural marketing and entrepreneurship can create opportunities beyond conventional farming.

5. **Employment Generation:** Industry-oriented curricula can improve employability in agricultural technology, research institutions, startups and allied sectors.

Challenges

1. **Infrastructure Gaps:** Many institutions lack advanced laboratories, digital facilities and practical training infrastructure.

2. **Skill Mismatch:** Academic curricula may not adequately reflect changing industry requirements.

3. **Unequal Access:** Rural students may face financial and geographical barriers to specialised education.

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Way Forward

1. Strengthen collaboration between agricultural universities, research institutions, industry and farmers.

2. Integrate practical training, internships and field-based learning into curricula.

3. Promote entrepreneurship and technology incubation within agricultural universities.

4. Improve access to quality agricultural education in underserved regions.

Conclusion

Specialised agricultural education can transform India's agricultural sector from a largely traditional activity into a knowledge-driven and innovation-oriented system. Linking education with research, industry and farmers' needs is essential for sustainable agricultural development.