

AGRICULTURE (Paper I)

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Write short notes on the following in about 150 words each: **15×4=60**
- (a) Potential of organic farming in North-Eastern India
 - (b) Harnessing synergy between water and nutrients for high crop productivity
 - (c) Major constraints in Rice-Rice and Rice-Wheat cropping system in India
 - (d) Scope and limitations of cultivation of sorghum and sugarcane
2. Bring out the possible impact of climate change on Indian agriculture. What are the possible mitigation options? Comment on any National and/or International Regulatory Mechanisms in this regard. **60**
3. (a) In the context of Integrated Farming System (IFS), describe feasible enterprise diversification for dryland areas with special reference to small landholdings. **30**
- (b) What are the management strategies for tackling the major soil-related constraints in agricultural production? **30**
4. (a) Differentiate between active and passive factors of soil formation. **15**
- (b) Comment on the use of Remote Sensing and Geographic Information System (GIS) in agricultural planning. **15**
- (c) Comment on soil test based nutrient recommendations for crops and their adoption by farmers. **15**
- (d) Differentiate between green manuring and biofertilizers for crop production. **15**

SECTION 'B'

5. Write short notes on the following in about 100 words each: **12×5=60**
- (a) Minimizing run-off losses of irrigation water
 - (b) Management of industrial effluents in checking soil and water pollution
 - (c) Role and importance of Farm Management under changing rural farm scenario
 - (d) Cooperative farming in the context of subdivision and fragmentation of land-holdings
 - (e) Role of Self-Help Groups in rural development
6. (a) Discuss the status of unemployment and disguised unemployment in Indian agriculture. **30**

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| | (b) | Enumerate the major problems of Indian agricultural marketing. | 30 |
| 7. | (a) | Despite existence of Krishi Vigyan Kendras in most of the districts, it is argued that only selective technologies have gone to ultimate clients. Evaluate this argument and enumerate the constraints in dissemination of technologies. | 30 |
| | (b) | Describe the importance of crop insurance in minimizing risk in agricultural production. | 20 |
| | (c) | Comment on the methodology of socio-economic survey in India. | 10 |
| 8. | (a) | What are the various water conservation practices that can be used in rainfed agriculture? | 20 |
| | (b) | Bring out the geographic status of groundwater availability in India. | 15 |
| | (c) | Highlight the importance of farm planning and budgeting in resource allocation and cost minimization. | 10 |
| | (d) | Comment on the process of evaluation of extension programmes. | 15 |