

AGRICULTURE (Paper I)

Time Allowed : Three Hours

Maximum Marks : 250

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.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

SECTION 'A'

1. Answer the following in about 150 words each:—
 - (a) Discuss ecological principles to develop productive and sustainable ecosystems. 10
 - (b) Explain Indian efforts towards environmental problems at international level. 10
 - (c) Describe the management of paddy-wheat cropping system having forecast of poor rain. 10
 - (d) Describe the importance of organic farming with respect to nutritional value addition. 10
 - (e) Describe biological weed control with suitable example. 10
2.
 - (a) What are suitable agroecological management strategies? 10
 - (b) Explain ecological concept of productivity. 20
 - (c) Discuss the impact of short duration and long duration varieties on deterioration of soil health. 20
3.
 - (a) Describe the package of practices for production of pigeonpea. 20
 - (b) Write the importance of quarantine check of weed seeds in importing foodgrain. 10
 - (c) Define the theory of tolerance and relate it to the principles of plant distribution and adaptation. 20
4.
 - (a) What are the important features of xerophytes for ecological adaptation? 10
 - (b) How agro-forestry plantation is helpful to the farmers? 20
 - (c) Describe crop-weed competition. 20

SECTION 'B'

5. Answer the following in about 150 words each:—
 - (a) What are important soil animals? Write their contributions to soil. 10
 - (b) What are the major causes of global warming? 10
 - (c) What are various drainage systems? Discuss their benefits. 10
 - (d) What is the role of Agricultural Technology Management Agency (ATMA) as a converging agency? 10
 - (e) Enumerate the procedures in developing farm plan and budget. 10

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| 6. | (a) | Write a note on rain water harvesting and recharge of ground water. | 10 |
| | (b) | How does industrial effluent affect soil and water? Enumerate the methods of effluent management in agriculture. | 20 |
| | (c) | Discuss the mechanism of fixation of minimum support prices of agricultural products. | 20 |
| 7. | (a) | How is a new technology assessed and refined? | 20 |
| | (b) | Why marketing information is considered important in agricultural marketing? Discuss the status of market intelligence in India. | 20 |
| | (c) | How to increase water absorption and retention capacity of soil? | 10 |
| 8. | (a) | Who are the target groups in agricultural extension? State the mechanism to reach such groups. | 20 |
| | (b) | Explain various farm management tools in farm planning. | 10 |
| | (c) | What do you understand by slow release nitrogen from nitrogenous fertilizers? What is its importance? | 20 |