

Indian Forest Service

AGRICULTURE

Paper I

Time Allowed : Three Hours

Maximum Marks : 200

INSTRUCTIONS

Candidates should attempt Questions No. 1 and 5 which are compulsory, and any THREE of the remaining questions, selecting at least ONE question from each Section.

The number of marks carried by each question is indicated at the end of the question.

Answers must be written in ENGLISH only.

SECTION A

1. Write critical comments on any *four* of the following, each not exceeding 150 words : 4×10=40
 - (a) Plant ecology and edaphic factors influencing it
 - (b) Persistence of herbicides in soil
 - (c) Impact of global warming on Indian agriculture
 - (d) Crop diversification
 - (e) Impact of changing environment on cropping pattern

2. Describe in tabular form, the package of practices for the following crops : 4×10=40

Package	Field Pea	Wheat	Cotton	Mustard
Spacing (cm)				
Seed rate (kg/ha)				
Recommended dose of fertilizer (NPK kg/ha)				
Weed control (Name of herbicide dose kg/ha)				
Yield (kg/ha)				

3. Explain the following : 4×10=40

- Major components of sustainable agriculture
- Essential and beneficial plant nutrients for crops
- Phosphorus fixation in soils and its release for crop
- Soil sickness and its remedy

4. Write short notes on the following : 4×10=40

- Organic farming – its scope and limitations in Indian agriculture
- Relay cropping
- Dryland and rainfed agriculture
- Fate of nitrogen in lowland rice

SECTION B

5. Differentiate between any *four* of the following : $4 \times 10 = 40$
- (a) Soil conservation and Moisture conservation
 - (b) Drip irrigation and Sprinkler irrigation
 - (c) Water-use-efficiency and Irrigation efficiency
 - (d) Consumptive use and Conjunctive use of water
 - (e) Crop rotation and Cropping system
6. What do you understand by Marginal and Small farmers ? What problems are these farmers facing in the adoption of modern technology ? Discuss non-monetary/low input technology for such a large community of farmers. 40
7. Write a note on the following : $4 \times 10 = 40$
- (a) Problems in marketing of agricultural produce
 - (b) Characteristics of farm management
 - (c) Lab to Land programme on farmers' fields
 - (d) Farmers' Rally (Gosthi) and Field visits
8. Describe briefly the following : $4 \times 10 = 40$
- (a) Price fluctuations of agricultural produce
 - (b) Rural employment for women through agricultural production
 - (c) Significance of agricultural exhibition and farmers' field visits
 - (d) Methods of evaluation of extension programmes