

2740

D-VSF-L-NTA

## 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

- (a) Major components of sustainable agriculture
- (b) Essential and beneficial plant nutrients for crops
- (c) Phosphorus fixation in soils and its release for crop
- (d) Soil sickness and its remedy

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

- (a) Organic farming – its scope and limitations in Indian agriculture
- (b) Relay cropping
- (c) Dryland and rainfed agriculture
- (d) 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

