

Roll No. ....

Total No. of Pages : 3

**1(CCEM)0**

**Agriculture**

**(01)**

**Paper—I**

Time : Three Hours]

[Maximum Marks : 300

- Note** :—
- (i) Answers must be written in English.
  - (ii) Attempt **FIVE** questions in all, selecting at least **TWO** from each Section. All questions carry equal marks.
  - (iii) The number of marks carried by each question is indicated at the end of the question.
  - (iv) Part/Parts of the same question must be answered together and should not be interposed between answers to other questions.
  - (v) The answer to each question or Part thereof should begin on a fresh page.
  - (vi) Your answers should be precise and coherent.
  - (vii) If you encounter any typographical error, please read it as it appears in the text-book.

**SECTION–A**

1. (a) Natural resources preserve Ecology and explain in detail how they can be managed and conserved.
- (b) What is Climate Change ? How Agriculture is considered in climate change and explain the ways by which it can be mitigated in present scenario of Agriculture ?
- (c) What is Green Revolution and explain in detail how the different concepts of cropping pattern/system influenced the green revolution ?

3×20=60

2. (a) Enumerate the importance of Forests in National economy. Explain the steps taken by the Government to promote forest cover. 2×30=60
- (b) List out the damage and losses caused by weeds and explain in detail about the Integrated Weed Management practices followed for any one of the important cereal crops such as rice or wheat.
- (c) Give an account of modern concepts in soil classification. Explain in detail how the soil health can be maintained. 3×20=60
3. Write short notes on any **FOUR** of the following :-
- (a) Essentiality criteria of plant nutrient and synergetic and antagonistic effect of plant nutrients
- (b) Symbiotic nitrogen fixation and role of biofertilisers
- (c) Government policies on rainfed agriculture
- (d) Environmental pollution and its impact on society
- (e) Measures to boost pulses production. 4×15=60
4. What is watershed ? How it is managed and explain in detail about the various programmes implemented by the Government in watersheds and their impact ? 1×60=60
5. (a) Explain the importance of increased water use efficiency and discuss in detail about water related issues and steps to overcome in India.
- (b) How problem soils are formed ? List out and discuss on the management of problem soils in India. 2×30=60
- SECTION-B**
6. (a) What is the need for Farming Systems Approach in Agriculture and discuss on the concepts, components and advantages of rice-based farming systems in low and uplands of India ?
- (b) What is farm management ? List out and explain the steps followed to run a farm commercially and economically. 2×30=60
7. (a) Describe on the alternative farming practices that can be followed by Indian farmers for successful farming in the context of Globalisation.
- (b) Explain in detail about the different market channels and how best these can be better utilized by the farmers. 2×30=60
8. Write short notes on any **FIVE** of the following :
- (a) Global warming and its importance on Agriculture
- (b) Organic agriculture
- (c) Alternate crops
- (d) Biological measures of soil conservation
- (e) Labour management in agriculture
- (f) Dryland agriculture and Indian economy. 5×12=60
9. Explain in detail how best the agricultural production can be increased by effective economic, extension and social programmes by the Government with suitable examples. 1×60=60
10. Answer any **TWO** of the following :-
- (a) Role of co-operatives and success stories
- (b) Programmes of the government for Landless Agricultural Labourers
- (c) Human resource development and capacity building for extension workers. 2×30=60