

CSM – 6/19
Agriculture
Paper – I

Time : 3 hours

Full Marks : 300

The figures in the right-hand margin indicate marks.

*Candidates should attempt Q. No. 1 from Section – A and Q. No. 5 from Section – B which are compulsory and any **three** of the remaining questions, selecting at least **one** from each Section.*

SECTION – A

1. Answer any **three** of the following in about **200** words each : 20×3 = 60
 - (a) Give a brief account on various cropping pattern and cropping sequence and their importance in crop production.
 - (b) How does the water and soil get polluted due to industrialization and narrate the techniques for alleviation ?

- (c) Discuss the principles and practices followed in organic farming and its importance in crop production and climate change.
- (d) Narrate the package of practices adopted in Rice and Millets and the strategies for improvement.
2. How would you increase the water use efficiency of crops ? Briefly describe the criteria of irrigation water and explain the conditions under which sprinkler irrigation can be adopted. Narrate the qualities of irrigation water and how the drainage of water logged soils can be done. 60
3. Explain with examples on various groups of herbicides used in chemical weed control. What are the characteristics of weeds and their association with crop ? What is meant by biological weed control and how does it differ from mechanical weed management ? 60
4. What do you mean by social forestry and how does it differ from agroforestry and help in agriculture ? Define and list out the essential

nutrients and narrate how the soil fertility is evaluated for fertilizer usage. Draw a sketch on how the fixation of nitrogen and phosphorous occur in soils and how their efficiency can be improved. 60

SECTION – B

5. Write short notes on any **three** of the following in **200** words each : $20 \times 3 = 60$
- (a) How the abiotic factors regulate the crop growth ? Explain with suitable examples.
 - (b) What is meant by biodiversity ? Explain its sources and how it can be managed.
 - (c) Narrate how the environmental pollution become hazardous to crops and explain its alleviation methods.
 - (d) Does farm planning and budgeting help in enhancing farming income ? Explain with examples.
6. Discuss how the co-operative can be exploited in improving the economy of agriculture. Narrate how the Intellectual Property Rights is beneficial

to agriculture. How would you justify that different farming system benefit the economy in agriculture and discuss the factors which regulate the process. 60

7. Briefly describe the method of evaluation of agricultural extension programme and mention their importance in rural development. How can the training programme for extension workers be made beneficial to farming community ? Differentiate among the small, marginal and big farmers and explain how does it control in agricultural production and rural employment. 60

8. What do you mean by institution-village link programme and can you justify it will help the farming community ? Give a brief account on how World Trade Organisation and General Agreement on Trade and Tariff affect the economy of farming community. Give a brief account how the marketing and pricing of agricultural inputs and outputs are decided and their effect on farmers. 60

