

## AGRICULTURE

## FIRST PAPER

Full Marks : 200

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Write in details about the package of practices of rice cultivation. 10
2. What are the major soil fertility problems of Assam and how do you manage the problems for increasing crop production? 10+10=20
3. Distinguish between market and marketing. Write briefly about the price spread analysis. Suggest some measures to remove the problems of traditional marketing system. 4+6+10=20
4. What do you understand by Ecological agriculture? Discuss the current developments in low-input sustainable agriculture bringing out the concepts and methodologies used with suitable examples. 5+5+10=20



5. What is inflation? Can there be an inflation without rise in price? Explain the anti-inflationary policy measures best suited at present for the Indian economy.  $2+2+6=10$

6. Emphasize the importance of social forestry in maintaining the ecological balance. How does farm forestry differ from social forestry? Suggest a suitable scheme for establishment of farm forestry for high rainfall areas of Assam.  $8+4+8=20$

7. Write short notes on (any five) :  $2 \times 5 = 10$

(a) Mycorrhizae

(b) Phosphate solubilizing bacteria

(c) Biodegradation of agrochemicals

(d) Organometallic complexes

(e) Biofertilizers

(f) Iron toxicity to plants

8. What strategies you consider suitable for conservation of environment and higher level of crop production? Discuss these strategies in the light of chemical and organic agriculture.  $6+7+7=20$



9. Write short notes on (any four) :  $2\frac{1}{2} \times 4 = 10$

- (a) Relay and intercropping
- (b) Oil seed production scenario in Assam
- (c) Biological control of weed
- (d) Biological nitrogen fixation in agriculture
- (e) Watershed management
- (f) Soil drainage
- (g) Shifting agriculture

10. What are the causes of disappearance of forest areas in North-Eastern Region of India? Can you relate deforestation and recurrence of flood in Assam? How can the forest degradation be arrested and the degraded forest be revegetated? 20

11. (a) What are audio-visual aids? What role audio-visual aids play in dissemination of agro-technology to farmers? Describe in brief. 10

(b) What are the steps involved in developing an extension programme? Describe the steps with the help of a suitable example. 10



12. What are the different constituents of soil related to soil fertility? Explain the role of these constituents in maintaining soil productivity.

5+15=20

Or

Write an essay on agriculture as a business venture for the educated unemployed youth of Assam.

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2/12-300/3

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