

2014

AGRICULTURE

FIRST PAPER

Full Marks : 200

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer all questions

1. "Soil testing is done to recommend fertilizers in soil." Explain. What do you mean by soil testing? What are the basic philosophies of testing of soil? How are fertilizers recommended based on soil test values?
4+6+10=20
2. Explain the mechanism of phosphorous fixation in acid soil. Discuss briefly the factors affecting phosphorous fixation. 10+10=20
3. What is soil erosion? Discuss the factors and processes of water erosion in Assam. What are the different measures adopted for conservation of soil resources? 4+8+8=20

(2)

4. What is 'front line demonstration'? Discuss its special features. How will you conduct result demonstration on the farmers' field?
5+7+8=20
5. What are the main characteristics of agricultural marketing? State the classification of agricultural output prices. What are the causes of price fluctuation of agricultural products?
7+7+6=20
6. State various external factors of crop production. Discuss about the climatic factors affecting crop production. 5+15=20
7. State the mandates of KVK. Explain the activities performed by KVKs. Write the role of Agricultural Technology Information Centre (ATIC) located at different agricultural universities of the country. 5+5+10=20
8. Define environment. Discuss the impact of changing environment on cropping pattern of a locality. State the environmental pollution and associated hazards to crops, animals and human. 3+7+10=20
9. Discuss the modern concept in nutrient availability. Explain the ways of movement of ions from soil to roots. 8+12=20

(3)

10. Write short notes on the following : 4×5=20

- (a) Golden rice
- (b) Behaviour of Fe in acid soil
- (c) Biofertilizers
- (d) Scheduling of irrigation of crops
- (e) Biological control of weeds
