

2002

AGRICULTURE

SECOND PAPER

Full Marks : 200

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Write short notes on the following : 5×4=20
 - (a) Hybrid variety
 - (b) Synthetic variety
 - (c) Back cross method of breeding
 - (d) Pure line theory

2. What are the basic requirements of photosynthesis? Describe the light phase of photosynthesis. 5-5=10

3. What are the plant growth promoters and plant growth inhibitors? Describe the mode of action of ethylene in fruit ripening. 4-6=10

4. Write short notes on the following : 4x5=20

- (a) Mango malformation
- (b) Citrus decline
- (c) Commercially viable flower crops of Assam
- (d) Bolting
- (e) Cole crops

5. What do you mean by biological control of plant diseases? Write down the principles of biological control. Elaborate five crop diseases against which this management practice has been reported to be effective. 3-7-10=20

6. Write briefly about the present status and trend of food production in India. Write about the policies of the Government in meeting the consumption needs of the population in the light of the following parameters : 8-12=20

- (a) Procurement price
- (b) Minimum support price
- (c) Buffer stock
- (d) Public distribution system

7. What do you mean by domestication of crop plants? Discuss the mode of domestication and the role of selection in domestication process. 2+4+4=10

8. Discuss the concepts of Integrated Pest Management Programme (IPM). Point out the strategies of this programme by selecting a particular insect pest of a crop. $4+6=10$

9. What should be the strategy for cultivating banana in Assam on commercial basis? Forward your suggestions on the basis of following points 10

- (a) Variety
- (b) Cultivation practice
- (c) Plant protection measures
- (d) Post-harvest handling
- (e) Marketing

10. Differentiate between anaerobic and aerobic respiration. Describe the pathway of glycolysis. $5+5=10$

11. What are C_3 and C_4 dicarboxylic acid pathway? How does C_3 plants differ from C_4 plants? $4+2=6$

12. What do you mean by protected cultivation? What are the prospects of glass house for raising off-season vegetable and flower in Assam? $5+5=10$

...aspects of popularizing
hybrid rice in Assam? Why Chinese rice
hybrids have not become successful in our
country?
-5+5=10

14. Write an essay on development of
horticulture industry in Assa...

25

2/18-300/33

AE, M-02-EE-1