

3
7
Total No. of Printed Pages-4

ABP/CCM-1/XIV

AGRICULTURE

2015

FIRST PAPER

Full Marks : 200

Time : 3 hours

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

Part-A

Answer any eight questions.

1. Discuss critically about the principles of Weed management. State the different ways of weed management. Write in details the advantages and disadvantages of chemical method of weed management. $6+6+8=20$
2. Write in brief about the processes and factors of soil formation. State the basis of modern concepts of classification of Indian Soils. Discuss about the role of organic constituents of soils in maintaining soil productivity. $8+5+7=20$

Contd.

3. Discuss about role of agricultural extension in context of transfer of technology and its adoption. Write about the role of farm mechanization in relation to productivity and rural employment. Discuss about genesis and impact of lab to land programme in Indian Agriculture. $8+6+6=20$
4. Write about limitations of drainage in waterlogged soil and its effect on aerable crops? 20
5. Discuss about the various components of soil. Write notes on general characteristics of surface and sub-soil and also differentiate between soil and sub-soil. $10+5+5=20$
6. Write in details about the various steps of nitrogen mineralization. How nitrogen is lost from soil by different ways? How will you minimize these losses? $6+7+7=20$
7. Differentiate between evaluation and monitoring. State the different types of evaluation. Describe the role of extension workers for accelerating farm mechanism. $5+5+10=20$
8. How the concept of watershed management developed? Briefly describe the measures for management of different components of a mini watershed. $5+15=20$

9. Discuss the mechanism of nutrient uptake by plants. State the soil conditions that may be associated with deficiencies of different plant nutrients. 12+8=20
10. Discuss the factors affecting the time and method of application of fertilizers in crops. Why INM (Integrated Nutrient Management) practices has been paid utmost priority in crop production? 10+10=20
11. What are the different types of cost involved in management of a farm? Show the economic analysis of crop-livestock-fishery farming system under a given set of environmental condition of Assam. 8+12=20
12. What are the role of on-farm demonstration programmes of transfer of agricultural technology in Assam? Suggest the means and ways to motivate the farmers towards modern mechanisation in Agriculture. 10+10=20

Part-B

Answer any five questions.

13. Write about mechanisms of symbiotic and non-symbiotic nitrogen fixation. 8
14. Discuss critically the importance of multiple cropping for marginal holding farmers to ensure food security. 8

15. Discuss critically about various methods for erosion and run off management of soil. 8
16. Suggest possible measures to prevent price fluctuations of Agricultural products. 8
17. Briefly discuss the problems of rainfed farming in Assam. 8
18. Role of organic matter on soil properties and productivity of crops. 8
19. What are the different types of timing materials that can be used for reclaiming acid soils? 8
20. Briefly describe the impact of climate change on pollution and crop fields. 8