

2008

3

10148

AGRICULTURE (Optional)

कृषि (वैकल्पिक)

Time : 3 hours

Maximum Marks : 200

Note :

- (i) In all attempt **Five** questions.
- (ii) Question No. 1 is **compulsory**.
- (iii) Of the remaining questions, Attempt **Any Four** by selecting **one question** from each section.
- (iv) Number of optional questions upto the prescribed number in the order in which questions have been solved, will only be assessed and excess answers of the question/s will not be assessed.
- (v) Candidate should not write roll number, any names (including his/her own), signature, address or any indication of his/her identity anywhere inside the answer book otherwise he/she will be penalised.

1. Answer any four of the following questions : 40
- (a) Write on the scope of dry-land horticulture in arid zones of Maharashtra.
 - (b) Mention the present status and expected prospects of livestock production in Maharashtra.
 - (c) What is "Seed Plot Technique" ? Enumerate the steps involved in disease-free seed tuber production of potato.
 - (d) List three important diseases of sugarcane and mention their nature of damage and management.
 - (e) Mention in brief the factors responsible to low yield of vegetables. What measures are necessary to increase their production ?

SECTION - A

2. Answer the following questions :
- (a) Describe in brief the climatic factors responsible in influencing crop growth and yield. 20
 - (b) Mention cropping patterns followed in different agro-climatic zones of Maharashtra. 20
3. Answer the following questions :
- (a) Suggest Agro-meteorology advisory service and its role in crop production. 20
 - (b) Define multiple, multistory, relay and intercropping with suitable examples. 20

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SECTION - B

4. Answer the following questions :
- (a) Write down the criteria of essentiality of element. In what ways does fertility differ from soil productivity? 20
- (b) Discuss the ways and means to check soil erosion and run-off in hilly, foothills and valley lands. 20
5. Answer the following questions :
- (a) What are the characteristics of acid soils? How will it be reclaimed and managed for crop production? 20
- (b) Clarify drip and sprinkler irrigation and mention the benefits derived from them. 20

SECTION - C

6. Answer the following questions :
- (a) What is the role of mutation in crop improvement? 10
- (b) How does transpiration differ from evapo-transpiration? 10
- (c) Farm management is equally important as crop management for increased productivity and income. Explain. 20
7. Answer the following questions :
- (a) What is tissue culture? What is the technique to produce disease-free plant saplings? 20
- (b) What is photosynthesis? What are the factors affecting this process? 10
- (c) Explain the unit to compare economics of different farming systems. 10

SECTION - D

8. Answer the following questions :
- (a) Explain the standard of classifying big, small and marginal farmers and agricultural labourers. 20
- (b) What procedures are adopted in integrated management of pests and diseases for better crop yield? 20
9. Answer the following questions :
- (a) What are the effective methods of extension programmes for introducing improved technology in rural areas? 20
- (b) Late blight of potato is a very damaging disease, mention its casual organism, symptoms and control measures. 20

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