

2008

3

101487

## 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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