CSM : 16

AGRICULTURE

PAPER - II

Time Allowed : 3 hours | Full Marks : 100

Marks for each question is indicated against it.

Attempt any 5 (five) questions taking not more than 3 (three) questions from each Part.

PART - A

1. (a) What is the genetic basis of heterosis? How would you use hybrid vigour in crop improvement? Explain with examples in any field crop. **(10)**

(b) How would you use self-incompatibility in crop improvement programmes? **(10)**

2. Describe various classes of pure seed. What are the determinant factors of a good seed? Briefly describe various seed treatment and storage practices. Write a note on soil-water-plant relationship. **(5+3+6+6=20)**

3. What is the difference between C_3, C_4 and CAM plants? **(20)**

4. Write short note on the following: **(4×5=20)**

(a) Vernalisation

(b) Seed certification

(c) Centre of origin

(d) Sex linked, Sex-influenced and Sex-limited characters

PART - B

5. Write short note on the following: **(4×5=20)**

(a) Layout plans for gardens and lawns

(b) Management practices to control storage pests

(c) Protein energy malnutrition (PEM)

(d) Importance of economic thresholds in integrated pest management

6. (a) What is epidemiology? Discuss the important factors to be considered in plant disease forecasting. **(10)**

(b) Classify the pesticides based on their mode of action. **(10)**

7. Give an account of food production scenario of India and North-East India with respect to population. Write a note on food security act. Describe the constraints related to food production, procurement and distribution in India in your own words. **(8+3+9=20)**

8. Write down the detail package of practices for cabbage, pineapple, Frenchbean and potato in the agroclimatic conditions of North-Eastern Hill Region **(20)**

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