

CSM : 15

**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. Write short notes on any four of the following: **(4×5=20)**
 - (a) Laws of Heredity
 - (b) Significance of linkage and cross over in recombination breeding
 - (c) Classes of improved seed
 - (d) Genetically modified food
 - (e) Apomixis

2. Write short notes on any four of the following: **(4×5=20)**
 - (a) Heritability
 - (b) Self incompatibility
 - (c) Chromosomal aberrations
 - (d) Sex linked characters
 - (e) Cytoplasmic inheritance

3. Write short notes on the following: **(4×5=20)**
 - (a) PPVFRA
 - (b) DNA fingerprinting
 - (c) Cartagena protocol on Biosafety
 - (d) Certified seed and truthful labelled seed

4. Discuss the difference between C3, C4 and CAM mechanism of photosynthesis with examples. **(20)**

PART B

5. (a) What do you understand by protected cultivation and high-tech horticulture? Discuss various approaches for the same. **(10)**
- (b) Discuss the role of fruits and vegetables in human nutrition. **(10)**
6. What are the broad principles of disease and pest control? Describe integrated pest and disease management. **(20)**
7. Write short notes on the following: **(4×5=20)**
- (a) Targeted Public Distribution System in Mizoram
 - (b) National Food Security Mission (NFSM)
 - (c) Status of food processing industries in Mizoram
 - (d) Bamboo Flowering and Famine Combat Schemes (BAFFACOS)
8. Write short notes on the following: **(4×5=20)**
- (a) BPL population
 - (b) National dietary guidelines
 - (c) Protein energy malnutrition
 - (d) Food processing constraints

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