

WBCS MADE EASY

CSM(O)-AG-II/22

2022

AGRICULTURE

PAPER-II

Time Allowed — 3 Hours

Full Marks — 200

If the questions attempted are in excess of the prescribed number, only the questions attempted first up to the prescribed number shall be valued and the remaining ones ignored.

Answers may be given either in English or in Bengali but all answers must be in one and same language.

Group-A

Answer any three questions.

1. (a) Membrane play an important role in various function of living plant cell. Explain it with diagram and example.
(b) Discuss in details about photosynthesis of the plant. 20+20=40
2. Write notes on *any five* : 8×5=40
 - (a) Cell
 - (b) Cell Membrane
 - (c) Mitochondria
 - (d) Chloroplast
 - (e) Synaptonemal Complex
 - (f) Cell theory
 - (g) Ribosome
 - (h) Vacuole
3. (a) Define seed.
(b) Briefly describe the role of quality of seed in crop production.
(c) Discuss about various seed quality characters.
(d) Describe in brief about seed certification. 5+15+10+10=40
4. (a) What is allopolyploid? How does it occur in nature and how can you induce allopolyploid? Discuss the role of allopolyploid in plant evolution and limitation of it in crop improvement. 2+3+3+12=20
(b) What are the common aneuploids for locating genes of chromosome? Give a brief description of the techniques using suitable diagram. 20
5. (a) What is TPS? What are the advantages of using TPS? How can TPS be grown in plain area? 2+6+12=20
(b) How do the seeds deteriorate? What are the symbols of deteriorated seeds? How it is possible to maintain genetic purity of seeds? What are the agronomic techniques adopted to maintain genetic purity of seeds? 5+5+5+5=20

28910

Please Turn Over

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(2)

6. Describe the standard method of cultivation of Mango with special reference to soil type, climatic condition, fertilizer requirements, irrigation and management practices. 40

Group-B

Answer *any two* questions.

7. Write short notes on *any five* :

- (a) GM crops
- (b) Important medicinal plants of West Bengal and their uses
- (c) Certified seeds
- (d) Pest Management
- (e) Indexing of tuber
- (f) Quarantine
- (g) Heritability

8. Write the variety of tube-rose in the plains of West Bengal. Write their cultivation with special reference to land preparation, fertilizer requirement, inter cultural operation, irrigation and stick management. 5+10+10+10+5=40

9. Write in brief (*any four*) :

- (a) Hill reaction
- (b) Nutritional Security
- (c) Role of light as a biological agent
- (d) Tripple fusion
- (e) Neurospora
- (f) Post-harvest technology

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