

RS - 1

12 - Std

Time : 3.00 hrs.

FIRST REVISION TEST - 2025**BOTANY**

12196



Marks : 70

PART - I**I Answer all the questions.****Choose the correct answer and write the option code.**

15 × 1 = 15

- Coleorhiza is found in
a) Paddy b) ~~Bean~~ c) Pea d) Tridax
- In his classic experiments on pea plants, Mendel did not use
a) flowering position b) seed colour c) pod length d) seed shape
- DNA element with ability to change position is called
a) Cistron b) Transposon c) Intron d) Recon
- Which one of the following palindromic base sequence in DNA can be easily cut at about the middle by some particular restriction enzymes?
a) 5' CGTTCG 3' 3' ATCGTA 5' b) 5' GATATG 3' 3' CTAATA 5'
c) 5' GAATTC 3' 3' CTTAAG 5' d) 5' CACGTA 3' 3' CTCAGT 5'
- Virus free plants are developed from
a) organ culture b) meristem culture
c) protoplast culture d) cell suspension culture
- In soil water available for plants is
a) Gravitational water b) Chemically bound water
c) Capillary water d) hygroscopic water
- Ecosystem consists of
a) Decomposers b) producers c) consumers d) all of the above
- The plants which are grown in silvopasture system are
a) Sesbania and Acacia b) Solanum and Crotalaria
c) Clitoria and Begonia d) Teak and Sandal
- The quickest method of plant breeding is
a) introduction b) selection c) hybridization d) mutation breeding
- The only cereal that has originated and domesticated from the new world
a) Oryza sativa b) Triticum aestivum c) Triticum durum d) Zea mays
- Drosera is commonly known as
a) Sun dew plant b) Pitcher plant c) Venus fly trap d) Bladder wort
- Select the incorrect pair.

| Common Name | Botanical Name |
|----------------|----------------------|
| a) Keezhanelli | - Phyllanthus amarus |
| b) Adathodai | - Justicia adhatoda |
| c) Nilavembu | - Hevea brasiliensis |
| d) Turmeric | - Curcuma longa |

13. Fresh weight of an orchid seed may be
 a) 0 microgram b) 20.33 microgram c) 15 microgram d) 30.05 microgram
14. Colchicine is extracted from plant.
 a) *Calchicum autumnale* b) *Camellia sinensis*
 c) *Coffea arabica* d) *Cucumis Sativus*
15. The location of the first Gamma garden
 a) Delhi b) Calcutta c) Chennai d) Mumbai

PART - II

II Answer any six of the following. Question number 24 is compulsory.

16. Draw and label the parts of cut opened dicot seed? 6 × 2 = 12
17. Define Genetics.
18. What is TATA box?
19. What are the materials used to grow micro - organisms like spirulina?
20. Give an account on cryopreservation?
21. What is seed ball?
22. Pyramid of energy is always upright. Give reasons?
23. What is carbon foot print?
24. Which one of the chemical substance is responsible for the yellow colour in turmeric?
 Mention the uses of the chemical substance?

PART - III

III Answer any six of the following. Question number 33 is Compulsory.

25. Differentiate Grafting and Layering? 6 × 3 = 18
26. Give the names of the scientists who rediscovered Mendelism?
27. Draw diagram of different types of aneuploidy?
28. Compare the various types of Blotting techniques?
29. What is thermal stratification? Mention their types?
30. Draw a pyramid from following details and explain in brief.
 Quantities of organisms are given - Hawks - 50, Plants - 1000, Rabbit and Mouse - 250 + 250, Pythons and Lizard - 100 + 50 respectively.
31. How are microbial inoculants used to increase the soil fertility?
32. Write the economic importance of Teak and Rice?
33. Write short notes on Bio monitoring?

PART - IV

IV Answer all questions.

34. a) What is endosperm. Explain the types? (OR)
 b) Describe dominant epistasis with an example?
35. a) What is gene mapping? Write its uses? (OR)
 b) Mention the application of Biotechnology?
36. a) Explain the basic concepts involved in plant tissue culture? (OR)
 b) Enumerate the anatomical adaptations of xerophytes?
37. a) List out the types of Ecosystem with examples? (OR)
 b) Explain afforestation with case studies?
38. a) What are the different types of Hybridization? (OR)
 b) How will you prepare an organic pesticide for your home garden with the vegetables available from your kitchen?