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Reg. No. :

Name :

Sixth Semester B.Sc. Degree Examination, April 2022.

First Degree Programme under CBCSS

Botany

Core Course

BO 1643 – HORTICULTURE, PLANT BREEDING AND RESEARCH METHODOLOGY

(2019 Admission)

Time : 3 Hours

Max. Marks : 80

Draw diagrams wherever necessary

SECTION – A

- I. Answer **all** questions in one word or two sentences. Each question carries **1** mark
- 1. What is (a) Arboriculture (b) Training.
- 2. Name two plant introduction agencies (a) National (b) International.
- 3. Define heterosis.
- 4. Describe topiary.
- 5. Give an account of impact factor of journals.
- 6. Name the chemical used in inducing polyploidy.
- 7. What is Gootee?

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- 8. What is bibliography?
- 9. What is humus?
- 10. Define fertigation.

SECTION – B

 $(10 \times 1 = 10 \text{ Marks})$

- II. Answer **any eight** of the following. Each question carries **2** marks.
- 11. How are plants propagated through cuttings?
- 12. Describe (a) Scion (b) Trophy.
- 13. What is null hypothesis?
- 14. Write note on biofertilizers.
- 15. Name any four garden tools and their uses.
- 16. Write notes on different types of pots and containers.
- 17. Explain inbreeding depression.
- 18. Write a note on the uses of Indoor garden
- 19. Explain (a) Plant Quarantine (b) Acclimatization
- 20. Write an account on different types of soil.
- 21. Comment on Plagiarism.
- 22. What is farm yard manure?
- 23. What is the significance of conservatories and greenhouses?
- 24. Briefly explain the scope and importance of horticulture.
- 25. With neat labelled diagram, explain T Budding.
- 26. What is (a) Emasculation (b) Pomology

 $(8 \times 2 = 16 \text{ Marks})$

SECTION - C

- III. Answer **any six** of the following. Each question carries **4** marks.
- 27. With suitable examples, describe how references are cited and arranged.
- 28. Describe the different methods of plant selection. Add a note on the advantages and disadvantages of pure line selection.
- 29. Briefly describe polyploidy breeding.
- 30. Differentiate between manure and fertilizers. Give two examples for each category.
- 31. Explain with neat labelled diagram, the process of Approach Grafting.
- 32. Write notes on the various mutagens used in mutation breeding.
- 33. What are Fertilizers? Explain the different methods of application of fertilizers.
- 34. Describe the process of vermicomposting.
- 35. Comment on the different garden components and their uses.
- 36. What are the different procedures of collecting data?
- 37. Explain the breeding techniques and achievements in India of (a) Rice(b) Coconut
- 38. Explain the steps in Bonsai making.

$(6 \times 4 = 24 \text{ Marks})$

SECTION – D

- IV. Answer **any two** of the following. Each question carries **15** marks.
- 39. Write an essay on various methods of irrigation.
- 40. Explain the different styles of flower arrangement.

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- 41. With suitable labelled diagrams, explain in detail, different methods of layering.
- 42. Describe how a project report can be made. Add notes on different sources used for literature review.
- 43. Elaborate on the basic principles of good experimental design. Comment on completely Randomized Design (CRD).
- 44. Write an essay on various methods of hybridization with suitable examples.

(2 × 15 = 30 Marks)