

(6 pages)

**Reg. No. :** .....

**Code No. : 30438 E      Sub. Code : SEBO 5 C**

B.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2021

Fifth Semester

Botany — Main

Major Elective II — HORTICULTURE AND PLANT  
BREEDING

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ( $10 \times 1 = 10$  marks)

Answer ALL questions.

Choose the correct answer.

1. Vegetative propagation is also known as
  - (a) Asexual Propagation
  - (b) Seed Propagation
  - (c) Sexual Propagation
  - (d) Micro propagation

2. 'Gootee' indicates
- (a) Simple layering
  - (b) Compound layering
  - (c) Air layering
  - (d) None of the above
3. The Taj Mahal garden is the style of
- (a) Indian                      (b) Japanese
  - (c) Mughal                    (d) Chinese
4. The plant used in hanging basket is
- (a) Asparagus              (b) Crotons
  - (c) Rose                      (d) None of the above
5. 'Compost' is recommended to
- (a) Fernery                  (b) Rockery
  - (c) Water garden          (d) Kitchen garden
6. The hormone associated with fruit ripening is
- (a) Auxin                      (b) Gibberellin
  - (c) Kinetin                    (d) Ethylene

7. Important step followed in hybridization techniques is
- (a) Selection of parent plants
  - (b) Protection of pollen grains
  - (c) Rearing of parent plants
  - (d) All the above
8. Emasculation is the process of removal of
- (a) Anthers                      (b) Carpel
  - (c) Flowers                      (d) Fruit
9. A chemical that induces mutation
- (a) Mustard gas                  (b) Ozone
  - (c) Ethylene                      (d) Auxin
10. Non-ionizing mutagen :
- (a) UV-radiation
  - (b) X-rays
  - (c) Beta rays
  - (d) Gamma rays

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) What is Horticulture? Mention the importance of Horticulture.

Or

- (b) Write notes on 'T' budding.

12. (a) What are hedges? Explain the importance of hedges in gardens.

Or

- (b) What is rockery? Suggest suitable plants for the establishment of rockery.

13. (a) Explain the importance of Organic manure.

Or

- (b) Write short notes on Transplantation.

14. (a) What are the objectives of Plant breeding?

Or

- (b) Explain interspecific hybridization.

15. (a) Give an account on Gamma garden.

Or

- (b) Write down the different types of chemical mutagens.

PART C — ( $5 \times 8 = 40$  marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the different types of cutting used in the propagation of plants.

Or

- (b) Describe the advantages and disadvantages of vegetative propagation.

17. (a) Write short notes on :

- (i) Terrarium
- (ii) Topiary.

Or

- (b) Describe the types of garden tools and their uses.

18. (a) Write an essay on seed propagation method.

Or

- (b) Write on the application of Gibberellins and Cytokinins in horticultural practices.

19. (a) Write a detailed account of heterosis breeding in plants. Add notes on its merits and demerits.

Or

- (b) Explain Pure-line selection in Plant breeding.

20. (a) Write a detailed account of the method of breeding for disease resistance in crops.

Or

- (b) Write an essay on the procedure of mutation breeding.

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