

(8 pages)

Reg. No. :

Code No. : 7784

Sub. Code : WBOE 17

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

First Semester

Botany

Elective I — HORTICULTURE

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. Vascular bundles in dicot stem are
- (a) Closed, Conjoint, Endarch
 - (b) Open, Conjoint, Endarch
 - (c) Closed, Conjoint, Exarch
 - (d) Open, Conjoint, Exarch

2. Where does the light reaction takes place?

- (a) Grana
- (b) Stroma
- (c) Cytoplasm
- (d) ER

3. Study of tissue is known as

- (a) Histology
- (b) Myology
- (c) Cytology
- (d) Embryology

4. Which of the following is known as an edaphic abiotic factor?

- (a) Light
- (b) Soil
- (c) Air
- (d) Water

5. _____ is an important mineral nutrient.

- (a) Hydrogen
- (b) Nitrogen
- (c) Oxygen
- (d) Carbon



6. Which of the following is a pair of biofertilizers?

- (a) *Salmonella* and *E.coli*
- (b) *Rhizobium* and Grasses
- (c) *Nostoc* and Legume
- (d) *Azolla* and BGA

7. Which are underground modified stem which grow into new plants and help in vegetative reproduction?

- (a) Suckers, Corms
- (b) Rhizomes
- (c) Bulbs, Tubers
- (d) All the above

8. Which of the following method is commonly practiced for root induction?

- (a) Cutting (b) Layering
- (c) Grafting (d) Budding

9. Plant growth promoters are not involved in

- (a) Cell division, Cell enlargement
- (b) Pattern formation, Seed formation
- (c) Dormancy, Abscission
- (d) Fruiting, Flowering

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10. The pair of hormones required for a callus to differentiate are

- (a) Ethylene and Auxin
- (b) Cytokinin and Gibberellin
- (c) Auxin and Absciscic acid
- (d) Auxin and Cytokinin

11. Sand culture is a component of

- (a) Soil less cultivation
- (b) Synthetic seed
- (c) Somatic embryogenesis
- (d) Embryo rescue

12. Which part would be most suitable for raising virus free plants for micropropagation?

- (a) Bark (b) Vascular tissue
- (c) Meristem (d) Node

13. Bonsai is Japanese art of

- (a) Xeriscaping
- (b) Growing small trees
- (c) Aesthetic
- (d) All the above

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[P.T.O.]



14. Why should landscape design be done?

- (a) Environmental
- (b) Socio-behavioral
- (c) Aesthetic
- (d) All of these

15. How many existing national parks present in India?

- (a) 100 (b) 106
- (c) 110 (d) 148

PART B — (5 × 4 = 20 marks)

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

16. (a) List out the divisions of horticulture.

Or

(b) Describe on translocation in plants.

17. (a) Differentiate between the pruning and thinning.

Or

(b) Describe the organic fertilizers and its significance.

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18. (a) How to check the viability of the seeds? - Explain.

Or

(b) Explain the method of propagation through suckers.

19. (a) Briefly write note on applications and limitations of nodal culture.

Or

(b) Embryo Rescue - Explain.

20. (a) Briefly write note on terrarium culture.

Or

(b) Give a short note on indoor growing plants.

PART C — (5 × 8 = 40 marks)

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

21. (a) Distinguish between the respiration and transpiration in plants.

Or

(b) Enumerate the cell and tissue systems of plants.

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22. (a) Summarize the bioinoculants with suitable example.

Or

- (b) Discuss the abiotic factors and its importance.
23. (a) Give an illustrate note on different types of vegetative propagation.

Or

- (b) Explain the methods of direct and indirect seedling production in nurseries.
24. (a) Write a detailed note on somatic embryogenesis and its significance.

Or

- (b) Summarize the preparation and uses of synthetic seeds.

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25. (a) Write elaborate note on post harvest handling of horticultural products.

Or

- (b) Give an account on Robotics in Horticulture.
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