

23U442

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Name :

Reg. No :

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2025

(CBCSS-UG)

(Regular/Supplementary/Improvement)

CC19U BOT4 C04 - PLANT PHYSIOLOGY, ECOLOGY AND GENETICS

(Botany - Complementary Course)

(2019 Admission onwards)

Time: 2 Hours

Maximum: 60 Marks

Credit: 2

Part A (Short answer questions)

Answer ***all*** questions. Each question carries 2 marks.

1. What is DPD?
2. How do plants passively absorb water?
3. Explain the deficiency symptoms of nitrogen in plants.
4. Explain photolysis of water.
5. Define the law of limiting factors.
6. What is log phase of growth?
7. Explain vernalisation.
8. What is haustorium? Give one example.
9. What is hydrosere?
10. Explain heterozygosity.
11. State and explain law of segregation with an example.
12. Explain back cross.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer ***all*** questions. Each question carries 5 marks.

13. Describe the structure and function of golgi bodies.
14. Explain K⁺ ion theory of stomatal movement.
15. Explain red drop and Emerson enhancement effect.
16. Describe abscission and senescence.

17. Write an account on the factors causing dormancy and the techniques to break dormancy.
18. Distinguish between commensalism and mutualism.
19. How fruit colour character in summer squashes inherits?

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. What is Calvin cycle? Explain the main reaction of Calvin cycle by means of a schematic diagram.
21. What are hydrophytes? What are the major adaptations of hydrophytes?

(1 × 10 = 10 Marks)
