

21U442

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Name:

Reg.No:

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U BOT4 C04 - PLANT PHYSIOLOGY, ECOLOGY AND GENETICS

(Botany - Complementary Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 2

Part A (Short answer questions)

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

1. Describe the structure of ribosomes.
2. What are antitranspirants?
3. What are essential elements?
4. Explain the structure and working of basic pigment systems in chloroplast.
5. Explain photophosphorylation.
6. Write a note on abscisic acid.
7. Explain photoperiodism.
8. What is a predator?
9. Explain ecological succession. What is its significance?
10. What is emasculation? Explain one method of emasculation.
11. What is the significance of 1: 1 ratio?
12. Explain 12:3:1 ratio.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Describe the difference between diffusion pressure deficit and water potential.
14. Describe the physical force theory of ascent of sap:
15. Explain C₄ mechanism of CO₂ fixation.
16. Describe abscission and senescence.
17. Explain the causes and methods to overcome seed dormancy.

18. Enumerate ecological adaptations of xerophytes.
19. Explain the law of independent assortment. Give one example.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Give an account of dark reaction of photosynthesis.
21. Explain the morphological, anatomical and physiological adaptations in epiphytes.

(1 × 10 = 10 Marks)
