

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2025
2018, 2019, 2020, 2021, 2022 ADMISSIONS SUPPLEMENTARY
SEMESTER II - COMPLEMENTARY COURSE 2 (BOTANY)
BO2C01B18 - Plant Physiology

Time : 3 Hours

Maximum Marks : 60

Part A**I. Answer any Ten questions. Each question carries 1 mark****(10x1=10)**

1. Explain imbibition with example.
2. Explain symplast pathway.
3. Give an example of an anti-transpirant.
4. Define transpiration.
5. What are the three primary macro nutrients?
6. What is Krantz anatomy?
7. Explain PAR.
8. Which is the first stable compound in C₃ cycle?
9. Name the first stable compound of C₄ cycle.
10. What are anthesins?
11. What are day neutral plants?
12. Name the auxin that is used as a weedicide.

Part B**II. Answer any Six questions. Each question carries 5 marks****(6x5=30)**

13. Explain the vital force theories of ascent of sap.
14. What are the different kinds of stomatal movements?
15. Explain osmotic and non-osmotic mechanism of active absorption.
16. Enlist the role of nitrogen and phosphorus in plant metabolism.
17. Explain the glycolate pathway. Add a note on its advantages and disadvantages.
18. Differentiate the mechanism of carbon assimilation in CAM and C₄ plants.
19. What are CAM plants? Explain the process of carbon fixation in them.
20. Explain the concept of sink and source.
21. Describe the various types of senescence in plants.

Part C**III. Answer any Two questions. Each question carries 10 marks****(2x10=20)**

22. Explain Dixon's cohesion tension theory of ascent of sap.
23. Write an essay on C₃ cycle.
24. Explain the mass flow hypothesis of Munch.
25. What is seed dormancy? What are the factors causing dormancy in seeds? Explain how it can be overcome.