

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2024
(Regular/Improvement/Supplementary)

BOTANY
FBOT3C07 - PLANT PHYSIOLOGY, METABOLISM AND BIOCHEMISTRY

Time: 3 Hours**Maximum Weightage: 30****Part A: Answer any *four* questions. Each carries *two* weightage.**

1. Define water oxidizing clock.
2. What is source sink concept?
3. Describe CAM Cycle.
4. Give an account on cellulose.
5. Comment on lecithin.
6. Write a note on Michaelis-Menton equation.
7. What is thermogenesis?

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Write a comparative account on C₃ and C₄ cycle.
9. Explain the biochemistry of nitrogen fixation.
10. Write a note on plant growth hormones.
11. Give an account on classification of amino acids.
12. Explain enzyme activation.
13. Elaborate on the biosynthesis of lipids.
14. Write an account on the modern theories of stomatal mechanism.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Write an account on light dependent reaction of photosynthesis.
16. Explain the chemistry and physiological effects of phytochrome.
17. Write an account on nucleotides.
18. Explain the biosynthesis of carbohydrates.

(2 × 5 = 10 weightage)