

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023  
(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. Explain cohesion and adhesion.
2. What is transpiration?
3. Explain photorespiration.
4. Write an account on Glycolysis.
5. Explain the concept of protein derivatives.
6. What is photoassimilates?
7. Write a note on biosynthesis of phospholipids.

(4 × 2 = 8 weightage)

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

8. Write an account on biochemistry of nitrogen fixation.
9. Describe C4 cycle. Add a note on its photosynthetic efficiency.
10. Explain phloem transport.
11. Write a note on molecular logics of life.
12. Explain the classification of enzymes by IUB.
13. Describe gluconeogenesis.
14. Write an account on biosynthesis of Nucleotides.

(4 × 3 = 12 weightage)

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

15. Explain light dependent reaction in photosynthesis.
16. Write a detailed account on water transport mechanism in plants.
17. Explain the structure of protein.
18. Write a detailed account on classification of carbohydrates.

(2 × 5 = 10 weightage)