



QP CODE: 21103203



21103203

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS,  
DECEMBER 2021**

**Second Semester**

B.Sc Zoology Model I

**Complementary Course - BO2CMT02 - BOTANY- PLANT PHYSIOLOGY**

2017 ADMISSION ONWARDS

1D159036

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Define semipermeable membrane.
2. Who proposed transpiration pull theory?
3. What is transpiration?
4. Which is the most common type of transpiration in plants?
5. Name any two Microelements.
6. Name the element present in Chlorophyll.
7. Name the principal pigment of green plants .
8. Which wavelength is the absorption peak of P700?
9. Name the more prominent type of photophosphorylation in green plants.
10. Name a carbon reduction cycle in photosynthesis.
11. Define Log phase of growth.
12. What is SDP?

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. What is water potential? What are its components?





14. Differentiate between active absorption and passive absorption of water.
15. Explain the movement of water towards xylem by apoplastic and symplastic pathway.
16. What are Primary macroelements? Write a note on its significance and deficiency symptoms.
17. What are photosystems? Differentiate between Photosystem I and Photosystem II.
18. How photorespiration reduce photosynthetic efficiency in C3 plants?
19. Comment on phloem loading and unloading.
20. Explain the methods of breaking seed dormancy.
21. Comment on the physiological role of abscissic acid in plants.

(6×5=30)

### Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. What are the factors affecting transpiration?
23. Explain the three dimensional view of chloroplast with labelled diagram.
24. Briefly describe CAM Cycle. How CAM Cycle helps desert plants to increase the water use efficiency?
25. Give a detailed account of the physiological and biochemical changes accompanying seed germination.

(2×10=20)

