



22101807

**QP CODE: 22101807**

**Reg No** : .....

**Name** : .....

**B.Sc DEGREE (CBCS ) SPECIAL SUPPLEMENTARY EXAMINATIONS,  
MAY 2022**

**Fifth Semester**

**CORE COURSE - BO5CRT07 - PLANT PHYSIOLOGY & BIOCHEMISTRY**

Common to B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring And  
Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and  
Nursery Management, B.Sc Botany Model II Plant Biotechnology & B.Sc Botany and Biotechnology  
Model III Double Main  
2019 Admission Only  
314DBACE

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. Define Imbibition.
2. What are trace elements?
3. What do you mean by Red Drop?
4. Name the enzyme which catalyzes primary carboxylation in C4 cycle.
5. In what form organic food is translocated through phloem.
6. Give the name of end product of glycolysis.
7. What is amphibolic pathway?
8. Name a growth inhibitor plant hormone.
9. What is a peptide bond?
10. What do you mean by active site in protein structure?
11. Which group of molecules are known as biological catalysts?





12. Write down Michaelis-Menton equation for Enzyme kinetics.

(10×1=10)

**Part B**

*Answer any **six** questions.*

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

13. Explain starch-sugar interconversion hypothesis in stomatal movements.
14. Explain cyclic photophosphorylation with diagram.
15. Briefly explain the different steps of carbon fixation through Calvin cycle.
16. Explain RQ and its significance.
17. Explain the mechanism of Phototropism in plants.
18. Write down the Physiological adaptations of plants against salt stress.
19. What is a buffer? Explain buffer action.
20. Enlist five differences of Saturated and unsaturated fatty acids.
21. Briefly explain the role of temperature in enzyme action.

(6×5=30)

**Part C**

*Answer any **two** questions.*

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

22. Explain active and passive mechanisms of water absorption in plants.
23. Explain various factors affecting photosynthesis.
24. Explain alcoholic and lactic acid fermentation. How efficient they are?
25. Explain the biological functions of Carbohydrates.

(2×10=20)

