



23130215

QP CODE: 23130215

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE EXAMINATIONS,
OCTOBER 2023
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
2017 Admission Onwards
E66E69D3

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Define the term Plasmolysis.
2. What do you mean by active absorption of water?
3. Why photorespiration is known as C2 cycle?
4. What are C4 plants? Give one example.
5. Explain the terms Source and Sink in translocation.
6. What is substrate level phosphorylation?
7. Where exactly is ATPase is located in Mitochondria?
8. What is biotic stress?
9. Write down the composition of Starch.
10. What do you mean by tertiary structure of proteins?
11. Distinguish between saturated and unsaturated fatty acids.
12. What is activation energy?

(10×1=10)





Part B

*Answer any **six** questions.
Each question carries **5** marks.*

13. Explain starch-sugar interconversion hypothesis in stomatal movements.
14. Write notes on Photosynthetic pigments and their roles in photosynthesis.
15. What are the objections against pressure flow hypothesis?
16. Explain the process of Glycolysis giving thrust on its biological significance.
17. Write down the Physiological effects and commercial applications of Cytokinins.
18. Explain the mechanism of Geotropism in plants.
19. Explain the biological functions of water.
20. Briefly explain the classification of aminoacids with examples.
21. Explain induced fit theory of enzyme action with diagram.

(6×5=30)

Part C

*Answer any **two** questions.
Each question carries **10** marks.*

22. Explain the specific roles of mineral nutrients in plants.
23. Explain various factors affecting photosynthesis.
24. Give a comparative account of Photorespiration and normal cellular respiration.
25. Explain various kinds of enzyme inhibition.

(2×10=20)

