



22103417

QP CODE: 22103417

Reg No :

Name :

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

2017 Admission Onwards

333BAFF6

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Mention the importance of Plasmolysis in daily life.
2. Write any two symptoms of Magnesium deficiency in plants.
3. Which is the metal ion present in the Chlorophyll molecule?
4. What are the products of non-cyclic electron transport?
5. Which compound acts as primary CO₂ acceptor in C₄ cycle?
6. Distinguish between aerobic and anaerobic respiration.
7. What is the RQ value of Glucose if it is fully oxidised?
8. Define Allelopathy.
9. What is buffer action?
10. Draw the fundamental chemical representation/structure of an amino acid.
11. Name a protein having tertiary structure of folding.
12. Define allosteric inhibition.

(10×1=10)





Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Describe the mechanism of Passive water absorption in plants.
14. How intensity, quality and duration of light affects photosynthesis?
15. Explain Phloem loading and unloading.
16. Explain the process of Glycolysis giving thrust on its biological significance.
17. List out the Physiological effects of Auxins.
18. Explain the classes of flowering plants based on the Photoperiodic responses.
19. Draw the ring structure of glucose and fructose.
20. Explain the classification of Enzymes.
21. Explain lock and key hypothesis of enzyme action with diagram.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Explain the significance of stomatal transpiration in plants.
23. Explain different steps of Calvin cycle with the help of a scheme.
24. Explain Citric acid cycle with diagram
25. Explain the classification and biological functions of lipids.

(2×10=20)

