



25004560

QP CODE: 25004560

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) SPECIAL REAPPEARANCE EXAMINATIONS, FEBRUARY 2025**

**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

2022 Admission Only

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Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. Differentiate between hypotonic and hypertonic solutions.
2. What do you mean by active absorption of water?
3. Name the CO<sub>2</sub> acceptor compound in Calvin cycle?
4. Define Blackman's Law of limiting factors.
5. In what form organic food is translocated through phloem?
6. What is the net yield of ATP after glycolysis?
7. Which Krebs cycle enzyme is found in mitochondrial membrane?
8. What is IAA?
9. Define PH.
10. What is a Polysaccharide?
11. What do you mean by beta-pleated structure in proteins?
12. What are Ribozymes?

(10×1=10)

**Part B**

*Answer any **six** questions.*

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





13. Explain cohesion-tension theory of water absorption in plants.
14. With the help of diagram, explain fluorescence and phosphorescence.
15. Explain Hill reaction of photosynthesis.
16. Write short note on Lactic acid fermentation.
17. Explain the mechanism of Phototropism in plants.
18. Write down the Physiological adaptations of plants against salt stress.
19. Enlist five differences of Saturated and unsaturated fatty acids.
20. Explain induced fit theory of enzyme action with diagram.
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 the specific roles of mineral nutrients in plants.
23. Explain Crassulacean Acid Metabolism with merits and demerits.
24. Explain the terminal oxidation of reduced coenzymes through electron transport chain in mitochondrial membrane.
25. Explain various levels of protein structure formation.

(2×10=20)

