K25U 2310

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/ Improvement) Examination, November 2025
(2019 to 2023 Admissions)
CORE COURSE IN BIOTECHNOLOGY
5B08BTC : Plant Physiology

Time : 3 Hours Max. Marks : 40

PART – A

Write short notes on **each** of the following in **2** or **3** sentences. **Each** question carries **1** mark. **(6×1=6)**

1. Define Osmosis.
2. What is water potential ?
3. What is meant by sink cells ?
4. List the major function of Gibberellins.
5. Identify the hormone associated with phototropism.
6. Bud dormancy is associated with which hormone ?

PART – B

Write notes on **any six** of the following. **Each** question carries **2** marks. **(6×2=12)**

7. Brief on the factors affecting transpiration.
8. Comment on the major macro elements for plants.
9. What is vernalization ?
10. How is water potential regulated in plants ?

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11. Comment on the role of ethylene in plants.

12. What is gravitropism ?

13. Comment on nastic movement.

14. What are cytokinins ?

PART – C

Write short essay on **any four** of the following. **Each** question carries **3** marks. **(4×3=12)**

15. Give an account on mechanism of stomal movement.

16. Distinguish between active and passive absorption.

17. Elaborate on the method of translocation in phloem.

18. Elaborate on the mechanism of photoperiodism.

19. Give an overview of mechanism of seed longevity.

20. Explain the functioning of biological clock in plants and their regulation.

PART – D

Write essay on **any two** of the following. **Each** question carries **5** marks. **(2×5=10)**

21. Give an account of the transport of ions across cell membrane and its significance.

22. Write an essay on the different plant growth regulators.

23. What is seed dormancy ? Comment on the methods of breaking seed dormancy.

24. Give a detailed account on the effect of salt stress and plant adaptations towards it.

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