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(Pages : 2)

Name.....

Reg. No.....

**SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2024**

(CBCSS—UG)

Botany

BOT 6B 12—PLANT PHYSIOLOGY AND METABOLISM

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

**Section A***Answer all questions.**Each question carries 2 marks.**Ceiling : 20 Marks.*

1. Define water potential.
2. What is Antitranspirants ?
3. Define ascent of sap.
4. Differentiate simple and facilitated diffusion.
5. Describe the structure of chloroplast.
6. Briefly explain nitrogen assimilation.
7. Differentiate phloem loading and unloading.
8. Define nyctinastic movement.
9. Explain Vernalization.
10. What is Metabolism ?
11. Write a note on electron carriers.
12. Define oxidative phosphorylation.

**Turn over**

**Section B**

*Answer all questions.  
Each question carries 5 marks.  
Ceiling : 30 Marks.*

13. Write an account on mechanism of guard cell movement.
14. Explain the role and deficiency symptoms of micro nutrients in plants.
15. Describe CAM Pathway.
16. Write an account on Light reaction in plants.
17. Explain various types of movements in plants.
18. Describe Citric acid cycle.
19. Explain  $\beta$  Oxidation of fatty acids.

**Section C**

*Answer any one question.  
The question carries 10 marks.*

20. Explain Biological Nitrogen. Add a note on biosynthesis of amino acids.
21. Describe C3, C4 and CAM cycle in plants.

(1 × 10 = 10 marks)