B. Sc. DEGREE END SEMESTER EXAMINATION - JULY 2021
SEMESTER 2 : COMPLEMENTARY BOTANY FOR B Sc ZOOLOGY
COURSE : **19U2CPBOT02 : PLANT PHYSIOLOGY**

(For Regular - 2020 Admission & Improvement / Supplementary 2019 Admission)

Time : Three Hours   Max. Marks: 60

PART A
Answer All (1 mark each)

1. What is root pressure?
2. What is incipient plasmolysis?
3. Differentiate between impaction and stratification.
4. Removal of sucrose & other metabolites from sourse to the sink end is called as ....
5. What is Nitrogen fixation?
6. Write short note on Accessory pigments in photosynthesis
7. How many calvin cycles have to be completed in order to form one molecule of Glucose?
8. What are CAM plants ?

(1 x 8 = 8)

PART B
Answer any 6 (2 marks each)

9. List out various roles of stomata.
10. Expand and explain SPAC.
11. What is meant by seed dormancy? Explain the types.
12. What are the physiological effects of abscisic acid?
13. What are the types of senescence in plants?
14. What are Primary and Accessory pigments?
15. What is Photophosphorylation? What are the events involved?
16. State law of Limiting factors.

(2 x 6 = 12)

PART C
Answer any 4 (5 marks each)

17. Explain ascent of sap in plants with the help of supporting theories.
18. 'Stomatal control couples leaf transpiration and photosynthesis'. Comment on it.
19. Briefly explain seed germination and mobilization of carbohydrates.
20. What are the various environmental factors affecting fruit ripening?
21. Trace the generation of NADPH and ATP during Photosynthesis.
22. Compare cyclic and noncyclic electron transport

(5 x 4 = 20)

PART D
Answer any 2 (10 marks each)

23. Write an essay on types, significance and mechanism of transpiration.

OR

24. Write an essay on significance of water and salt stress in plants with special reference to its adaptations.

25. Explain the process of Translocation of organic solutes in plants.

OR

26. Describe the events in the production of Assimilatory powers during Light Reaction in Photosynthesis

(10 x 2 = 20)