20U244

Reg. No ..... Name .....

B. Sc DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER 2 : COMPLEMENTARY BOTANY FOR B Sc ZOOLOGY

COURSE : **19U2CPBOT02 : PLANT PHYSIOLOGY**

(For Regular - 2019 Admission)

Time : Three Hours Max. Marks: 60

Section A

Answer All the Following (1 mark each)

1. What is guttation?
2. What are mesophytes? Give an example.
3. Name any two synthetic auxins.
4. What are short day plants?
5. What are phytochromes?
6. Define Red drop Phenomenon
7. Name the enzyme catalyzing the carboxylation reaction in Calvin cycle
8. Define Photophosphorylation.

(1 x 8 = 8)

Section B

Answer any 6 (2 marks each)

9. What is active absorption of water in plants?
10. Explain root pressure theory.
11. Explain Much Mass flow hypothesis
12. What are the advantages of seed dormancy?
13. How plant hormones influence fruit ripening?
14. Mention the Role of PEP carboxylase.
15. Comment on Kranz Anatomy?
16. Distinguish between cyclic and Non- cyclic electron flow.

(2 x 6 = 12)

Section C

Answer any 4 (5 marks each)

17. Differentiate between active and passive absorption of water by plants.
18. Explain ascent of sap in plants with the help of supporting theories.
19. Explain Nitrogen cycle with the help of a schematic diagram
20. Give an account on vernalization.
21. Briefly describe the mechanism of Light Reaction in Green plants.
22. With the help of schematic diagram, discuss the mechanism of photophosphorylation.

(5 x 4 = 20)

Section D
Answer any 2 (10 marks each)

23. 'Transpiration is a necessary evil'. Justify your answer.
24. Write an essay on stress physiology in plants with reference to drought resistance in xerophytes.
25. Give an account on classification of plant movements with reference to tropic and nastic movements.
26. Summarise Photophosphorylation in plants.

(10 x 2 = 20)