



19101783

QP CODE: 19101783

Reg No :

Name :

B.Sc. DEGREE (CBCS) EXAMINATION, MAY 2019

Second Semester

B.Sc Zoology Model I

Complementary Course - **BO2CMT02 - BOTANY-PLANT PHYSIOLOGY**

2017 ADMISSION ONWARDS

10403B2A

Maximum Marks: 60

Time: 3 Hours

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. What is symplastic pathway?
2. Give an evidence to prove that root pressure is responsible for ascent of sap?
3. What are the functions of stomata?
4. Name any two anti-transpirants?
5. What is the function of light in photosynthesis?
6. Name the element present in Chlorophyll.
7. Kranz type of chloroplast is seen in which plants?
8. What do you mean by a photon?
9. Name the source of molecular oxygen in photosynthesis?
10. What is meant by scarification of seeds?
11. What is a sigmoid curve?
12. Which hormone induces fruit ripening ?

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Distinguish between diffusion and osmosis.
14. What is water potential? What are its components?





15. Explain the theories on the mechanism of stomatal opening and closing?
16. Give a short note on general functions of essential elements.
17. Briefly explain the significance of Chlorophylls.
18. With a diagram explain the structure of a photosystem.
19. How the external atmospheric factors affect the rate of photosynthesis?
20. List out the causes of seed dormancy.
21. Comment photoperiodism.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Explain the mechanism of passive absorption of water.
23. Explain in detail the major CO₂ fixation pathways in green plants.
24. Explain schematically the mechanism of C₄ cycle. How C₄ plants increase their photosynthetic productivity?
25. Give a detailed account of the physiological and biochemical changes accompanying seed germination.

(2×10=20)

