

TB142050B

Reg. No: .....

Name:.....

**B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2017**  
**(Supplementary – 2014 Admission)**  
**SEMESTER II - COMPLEMENTARY COURSE (BOTANY)**  
**BOT2PP - PLANT PHYSIOLOGY**  
**(For Zoology)**

**Time: Three Hours**

**Maximum Marks: 60**

**PART A**

**I. Answer all questions. Each question carries 1 mark**

1. Explain physiological dryness.
2. Define stress physiology.
3. What are Quantosomes?
4. Explain Blackmans law of limiting factors.
5. What is diffusion?
6. Define transpiration.
7. What are nastic movements?
8. What is seed dormancy?

**(8×1=8)**

**PART B**

**II. Answer any six questions. Each question carries 2 marks**

9. Differentiate between endosmosis and exosmosis.
10. Write a note on the factors affecting transpiration.
11. Give an account of water stress in plants.
12. Explain nitrogen cycle.
13. Differentiate between tactic and trophic movements in plants.
14. Write short notes on grand period of growth.
15. Give the structure of thylakoid.
16. What is photophosphorylation?
17. Write an account on practical utility of vernalization.
18. Differentiate between longday and shortday plants.

**(6×2=12)**

**PART C**

**III. Answer any four questions. Each question carries 4 marks**

19. Explain photorespiration.
20. Differentiate between salt tolerance and salt avoidance.
21. Explain the mechanism of stomatal transpiration.

22. Differentiate between Quantum yield and Quantum requirement.
23. Write an account on mechanism of translocation through phloem.
24. Explain the physiology behind the closing and opening of *Mimosa pudica* leaves.

**(4x4=16)**

### **PART D**

#### **IV. Answer any two questions. Each question carries 12 marks**

25. What is the role of nitrogen in the life of plants? What are its sources? Explain the mechanism of its absorption and utilization in plants.
26. What do you understand by diffusion, imbibition and osmosis? How do these processes help plants to absorb water?
27. Discuss the important events associated with light reaction of photosynthesis. What is its significance?
28. What are phytohormones? Write an account on their types, practical application and significance.

**(2×12=24)**