

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2018**SEMESTER – 6: BOTANY (CORE COURSE)****COURSE: 15U6CRBOT09: PLANT PHYSIOLOGY AND BIOCHEMISTRY***(For Regular - 2015 Admission)*

Time: Three Hours

Max. Marks: 60

PART AI. Answer **ALL** questions; each question carries **1** mark.

1. What is photosynthetic unit?
2. Name the enzyme which *catalyses* the first reaction of C₄ cycle?
3. What is meant by buffer?
4. What are the common sugars seen in plants?
5. What are holoenzymes?
6. Define wall pressure.
7. Illustrate the structure of sucrose.
8. Define peptide bond.

(1 x 8 = 8)

PART BII. Answer **ANY SIX** questions; each question carries **2** marks.

9. What is Kranz anatomy?
10. Write a note on ABA.
11. What are Allelochemicals?
12. What are Phospholipids?
13. Write a note on RUBISCO.
14. Explain Feedback mechanism.
15. What are Role of lipids in plants?
16. Explain Chemiosmotic hypothesis.
17. What is β Oxidation?
18. Differentiate between Epimers and Anomers.

(2 x 6 = 12)

PART CIII. Answer **ANY FOUR** questions; each question carries **4** marks.

19. Describe the cohesion-adhesion theory of ascent of sap.
20. Explain starch-sugar hypothesis of transpiration.
21. Differentiate active and passive absorption of water.
22. Explain the hormonal effect of Giberillins in plants.
23. Describe phloem loading and unloading.
24. Discuss on oxidative phosphorylation.

(4 x 4 = 16)

PART D

IV. Answer **ANY TWO** questions; each question carries **12** marks.

25. Transpiration is a necessary evil. Justify.

OR

26. Explain the mechanism of enzyme action and factors affecting it.

27. What is meant by limiting factors? How do they affect the rate of photosynthesis?

OR

28. What are essential elements? Mention their importance?

(12 x 2 = 24)
