Reg. No…….. Name…… **20U607**

B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2020

SEMESTER **–6: BOTANY (CORE COURSE)**

COURSE: **15U6CRBOT09: PLANT PHYSIOLOGY AND BIOCHEMISTRY**

(Common for Regular 2017 Admission & /Supplementary 2016 /2015 Admissions)

Time: Three Hours Max Marks: 60

PART A

I. Answer ALL questions; each question carries 1 mark.

1. Name the sugar derivative which is the carbon dioxide acceptor in C_3 pathway?
2. What are amino acids?
3. What is the significance of WP?
4. What is the other name for C_2 path way?
5. What are holoenzymes?
6. Name a gaseous antitranspirant?
7. Name the Kind of sugar transferred through phloem?
8. Name the hormone responsible for fruit ripening? (1 x 8 = 8)

PART B

II. Answer ANY SIX questions; each question carries 2 marks.

9. What are micronutrients?
10. What is meant by chlorosis?
11. What are the common fatty acids seen in plants?
12. What are phytochromes?
13. Define guttation?
14. What is meant by Glycolysis?
15. What is the deficiency symptom of Boron?
16. What is meant by the active site of an enzyme?
17. What is ETS?
18. What is a peptide bond? (2 x 6 = 12)

PART C

III. Answer ANY FOUR questions; each question carries 4 marks.

19. Schematically represent the non- cyclic photophosphorylation?
20. Differentiate transpiration from guttation?
21. Briefly discuss the common sugar derivatives involved in the C_3 pathway?
22. Briefly explain the modes of enzyme action in plants?
23. What is buffer? Discuss its importance in biological systems.
24. What is ABA? Briefly explain its role in plants? (4 x 4 = 16)

PART D

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

25. Explain the various phytohormones, their functions and their applications?

OR

26. Discuss and compare the accessory carbon assimilatory pathways that you have studied?

27. Briefly discuss the processes involved in the breakdown of glucose to yield ATP in plants?

OR

28. Write an essay on the common carbohydrates and their functions in plants?

(12 x 2 = 24)

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