

E 1516

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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2016

Sixth Semester

Core Course—PLANT PHYSIOLOGY AND BIOCHEMISTRY

(Common for B.Sc. Botany Model I, Model II and B.Sc. Botany and
Biotechnology [Double Main])

[2013 Admissions]

Time : Three Hours

Maximum Marks : 60

Part A (Short Answer Questions)

Answer all questions.

Each question carries 1 mark.

1. What are antitranspirants ?
2. What is DPD ?
3. Explain water potential.
4. What is the natural source of cytokinin ?
5. What is buffer ?
6. What is plasmolysis ?
7. What is root pressure ?
8. What is Hill reaction ?

(8 × 1 = 8)

Part B (Short Answer Questions)

Answer any six of the following.

Each question carries 2 marks.

9. What is meant by reaction center ?
10. Explain Emerson's enhancement effect.
11. Explain Blackman's law of limiting factor.
12. Write notes on hydroponics.
13. Differentiate action spectrum and absorption spectrum.
14. What are coenzymes ?
15. Explain starch-sugar interconversion theory.
16. What are CAM plants ?

Turn over

17. Explain Herbivory.
18. Explain Photoperiodism.

(6 × 2 = 12)

Part C (Short Essays)

*Answer any four of the following.
Each question carries 4 marks.*

19. Give an account of electron transport system.
20. What are the factors affecting respiration in plants ?
21. Explain the role of photosynthesis in the purification of atmosphere.
22. Give an account of the factors affecting photosynthesis in green plants.
23. Describe phloem loading and unloading.
24. Explain Kreb's cycle.

(4 × 4 = 16)

Part D (Long Essays)

*Answer any two of the following.
Each question carries 12 marks.*

25. Give an account of cyclic and noncyclic photophosphorylation.
26. Explain how pyruvate and NADH produced in glycolysis is oxidised by mitochondria.
27. Give an account of phytohormones and their action.
28. Describe the structure and role of fatty acids in plants.

(2 × 12 = 24)