

Total No. of Pages: 2

Register Number:

6405

Name of the Candidate:

M.Sc. DEGREE EXAMINATION December 2014

(BOTANY)

(SECOND YEAR)

240: PLANT PHYSIOLOGY AND BIOCHEMISTRY

Time: Three hours

Maximum: 100 marks

SECTION-A

Answer ALL questions

(8 × 3 = 24)

Each answer not to exceed 50 words

1. Stomata
2. Catabolism
3. C4 plants
4. Rhizobium
5. Auxin
6. Plant senescence
7. Bioenergetics
8. Monosaccharides

SECTION-B

Answer ALL questions

(6 × 6 = 36)

Each answer not to exceed 300 words

9. a) Explain the mechanism of stomatal opening and closing.
(OR)
b) Write a short note on antitranspirants.
10. a) Write a brief note on macro and micronutrients.
(OR)
b) Explain photophosphorylation and quantum yield concept briefly.
11. a) Krebs's cycle – Explain.
(OR)
b) Discuss the physiology of gibberellins.

12. a) Explain vernalization mechanism and their practical application.
(OR)
b) Explain the mechanism of enzyme action.
13. a) Explain the structure and properties of enzymes briefly.
(OR)
b) Write a brief note on Michaelis constant.
14. a) Write the classification and general properties of lipids.
(OR)
b) How proteins are synthesized in plants? – Discuss.

SECTION-C**Answer ALL questions****(2 × 20 = 40)****Each answer not to exceed 1200 words**

15. a) Explain CAM pathways in plants. List out its distinguishing features.
(OR)
b) Write an elaborate note on growth regulators.
16. a) Environmental stresses and kinds of stress resistance – Discuss.
(OR)
b) Give an account on alkaloids and flavonoids.

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