

OCTOBER 2011

P/ID 40231/PBTL

Time : Three hours

Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

1. Red drop.
2. RQ.
3. Gluconeogenesis.
4. Anthocyanin.
5. Leghaemoglobin.
6. Water potential.
7. Solution culture.
8. ABA.
9. CAM Plants.
10. Nitrate Reductase.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Explain the non-cyclic flow of electrons during Light Reaction.

Or

- (b) Write a note on cyanide resistant respiration.

12. (a) Explain β – oxidation.

Or

- (b) Describe the biosynthesis and functions of flavanoids.

13. (a) Explain the mechanism of symbiotic nitrogen fixation.

Or

- (b) Explain transamination method of amino acid biosynthesis.

14. (a) Explain Ascent of sap.

Or

- (b) Write short notes on Guttation and antitranspirants.

15. (a) List out the essential macronutrients and micronutrients and give the deficiency symptoms of any one macro and micronutrient.

Or

- (b) Explain the biosynthesis and mode of action of Auxin.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Explain the biochemistry and molecular biology of RUBISCO.

Or

- (b) Explain the interaction between photosynthesis and nitrogen metabolism.

17. (a) Describe the C₄ type of CO₂ fixation.

Or

- (b) Explain EMP pathway and its significance.

18. (a) Explain Glyoxylate pathway.

Or

- (b) Explain the role of secondary metabolites in plant-microbe interaction.

19. (a) Explain the mechanism of water absorption.

Or

(b) Explain the mechanism of translocation of solute.

20. (a) Give an account of phytochrome and its functions.

Or

(b) Describe photorespiration and its significances.
