

M.Sc. (Botany) Semester - 4 (CBCS) Examination

March/April- 2019

Plant Physiology and Metabolism

(CORE)

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Q.1 Answer the following (any 7) 14

1. What is the difference between C3 and C4 plants?
2. State the importance of Abscission
3. What is Photolysis of water?
4. Define the Non-cyclic photophosphorylation
5. Explain the term diffusion
6. What is morphogenesis in plants?
7. State the types of stomata are found in plants?
8. What are Plant Growth Regulators?
9. What is Photoperiodism?
10. Define: Scarification

Q.2 Answer the following (any two) 14

1. Write a detailed note on Vernalization
2. What is seed viability? Explain in detail
3. Write note on Seed dormancy

Q.3 Answer the following 14

1. What are macro – nutrients elements in plants ? Explain their role in plant growth and development.
2. Transpiration and stomatal movement

OR**Q.3 Answer the following 14**

1. State the physiological importance of micro-nutrients
2. Write a detailed note on water potential

Q.4 Answer the following (any two) 14

1. Explain photorespiration and state its significance
2. Write a note on CAM pathway
3. C3 cycle – Describe

Q.5 Answer the following (any two) 14

1. Write a note on Gibberellins in plant
2. Explain the role of Jasmonic acid and Polyamines as plant growth regulators
3. State the function and role of hormone Auxin in plants
4. Describe the importance of Cytokinin and Brassinosteroides