

M.Sc. (Botany) Semester - 3 (CBCS) Examination
Oct/Nov. -2019 - [NEW COURSE]
Plant Physiology (Core (New))

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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SECTION - I

- Q.1 Answer the following
- (a) Write short note on Nitrogen cycle (07)
- (b) Explain in detail the process of transpiration (07)

OR

- Q.1 Elaborate the term 'Mineral nutrition'. Explain major Micro and Macro nutrients. (14)

- Q.2 Answer the following
- (a) C3 cycle (07)
- (b) CAM cycle (07)

OR

- Q.2 Describe the structure of Mitochondria and explain its role in the plant cells. (14)
- Q.3 Answer the following (any seven) (07)
1. Define the term adsorption.
 2. Explain – Water potential
 3. What is photorespiration?
 4. Explain the importance of carbohydrates in Plants cells.
 5. State major factors affecting rate of photosynthesis
 6. Give any two examples of C4 plants
 7. Define the term 'trace elements'
 8. What is the role of electron transport chain?

SECTION - II

- Q.1 What is Seed dormancy? Explain in detail the mechanism of breaking seed dormancy (14)

OR

- Q.1 Write short notes on
- (a) Auxin (07)
- (b) Gibberellic acid (07)
- Q.2 Describe the process of photoperiodism (14)

OR

- Q.2 Write short note on:
- (a) Phytochrome (07)
- (b) Floral meristem (07)
- Q.3 Answer the following: (Any Seven) (07)
1. Which are the structure first observed in seed germination?
 2. What is stress physiology?
 3. Explain the importance of Ethylene
 4. State the significance of cytokinin hormone in plants
 5. How can we observe 'Growth and development in plants?'
 6. What are growth regulators in plants?
 7. What is ABA?
 8. Define the term vernalization.
