

M.Sc. (Botany) Semester - 3 (CBCS) Examination**DEC/JAN. - 2020 - [NEW COURSE]****Plant Physiology (Core (New))****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figure to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

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- Q.1 Answer the following (any seven) (14)**
1. Explain water absorption in plants
 2. Write any four deficiency in plants due to macronutrients
 3. Which are the major steps involved in nitrogen fixation?
 4. State major factors affecting rate of photosynthesis
 5. Give any four examples of C3 plants
 6. What is stress physiology?
 7. Explain the significance of auxin
 8. State the importance of Brassinosteroids in plants
 9. What is Geometric growth pattern
 10. Define the term 'shoot apex modification'.
- Q.2 Answer the following (any two) (14)**
- (a) Explain 'Polysaccharides' in detail
 - (b) What are micronutrients? Explain any four important micronutrients
 - (c) Write a detailed note on 'Transpiration'
- Q.3 Answer the following (any two) (14)**
- (a) Glycolysis pathway
 - (b) CAM cycle
 - (c) Mitochondria
- Q.4 Write short notes on (any two) (14)**
- (a) Gibberellic Acid
 - (b) Mechanism for breaking Seed dormancy
 - (c) Cytokinin
- Q.5 Write short note on any two of the following (14)**
- (a) Vernalization
 - (b) Pr and Pfr mechanism
 - (c) Tolerance to stress
