

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc., Winter 2017-18 Examination

Semester: 3**Subject Code: 11102205****Subject Name: Plant Physiology****Date: 27-12-2017****Time: 10:30AM to 01:00PM****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Brief note (Each of 04 marks) (08)**
(a) Describe Mechanism of water absorption in plant.
(b) Discuss root pressure theory.
- Q.1. B) Answer the following questions (Any two) (04)**
(a) Short note (Each of 02 marks) (04)
1. Draw diagram of chloroplast.
2. Label the diagram of chloroplast.
(b) Discuss the factors affecting photosynthesis. (04)
(c) Short note on Photosynthetic pigments. (04)
- Q.2. A) Answer the following questions. (04)**
(a) Short note (Each of 02 marks) (04)
1. What is transpiration pull?
2. Write down the functions of Auxin.
(b) Short note on Calvin cycle. (04)
- Q.2. B) Answer the following questions (Any two) (03)**
(a) Short note (Each of 01 marks) (03)
1. Define photosynthesis?
2. Name any two long day plants.
3. Define Photoperiodism.
(b) Discuss Antitranspirants. (03)
(c) Difference between active transport and passive transport. (03)
- Q.3. A) Brief note (Each of 04 marks) (08)**
(a) Classify the plants on the basis of photoperiods.
(b) Describe different types of plant Movements of locomotion.
- Q.3. B) Answer the following questions (Any two) (04)**
(a) Short note (Each of 02 marks) (04)
1. What is the difference between Fluorescence, Phosphorescence?
2. What is the difference between tropic and nastic movement?
(b) Short note on the carrier concept theory (04)
(c) Discuss the factors affecting the rate of transpiration. (04)
- Q.4. A) Answer the following questions. (04)**
(a) Short note (Each of 02 marks) (04)
1. What are the conditions necessary for Vernalization?
2. Discuss high temperature(heat) resistance in plants
(b) Short note on Red drop and Emerson's enhancement effect. (04)
- Q.4. B) Answer the following questions (Any two) (03)**
(a) Short note (Each of 01 marks) (03)
1. What are the effects of chilling injury in plants?
2. Write down any two practical applications Abscisic acid (ABA).
3. What is the chemical nature of kinetin?
(b) Short note on salt stress and salt resistance in plant. (03)
(c) Short note ethylene. (03)