



KERALA AGRICULTURAL UNIVERSITY
B.Sc (Hons.) Agriculture 2015 & Previous Admissions
IV Semester Final Examination-August-2017

Crps. 2201

Crop Physiology (2+1)

Marks: 50
Time: 2 hours
(10x1=10)

I Define or write short note on the following

- 1 Seed/ Seedling vigour
- 2 Water potential
- 3 Foliar nutrition
- 4 Transpiration
- 5 Photosynthesis
- 6 Ripening
- 7 Hormone
- 8 Osmosis
- 9 Senescence
- 10 Abscission

II Write short notes on any FIVE

(5x2=10)

- 1 Mention the causal factors and methods to break seed dormancy.
- 2 Write note on growth curve and measurement of plant growth.
- 3 What is CAM pathway and explain its significance.
- 4 List the commercial uses of plant growth regulators in agriculture and horticulture.
- 5 Define photorespiration and mention its significance.
- 6 Define photoperiodism and classify the plants based on photoperiodic response.
- 7 Define plant nutrition and classify the essential nutrients based on biochemical and physiological role.

III Write short essay on ANY FIVE of the followings

(5x4=20)

- 1 Define CGR, NAR and SLA
- 2 Explain in detail the mechanism of stomatal opening and closing.
- 3 Explain the factors affecting transpiration and crop production.
- 4 Explain the steps involved in sucrose synthesis and phloem loading in plants.
- 5 Explain Glycolysis with help of flowchart.
- 6 Write the methods used to measure photosynthesis and respiration in plants.
- 7 Write about properties and importance of water in relation to plant growth.

IV Write essay on any ONE

(1x10=10)

- 1 Explain in detail the 'Z' scheme or photosynthetic electron transport system (PETC) in plant.
- 2 Explain in detail the carbon assimilation pathway in C3 plants and regeneration of RuBP.
