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**

I **Define or write short note on the following** **(10x1=10)**

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 Glycloysis 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.

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