

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD  
SEMESTER END EXAMINATION**

**B.Sc. (Hons.) Horticulture**

<b>Semester</b> : I (New)	<b>Term</b> : I	<b>Academic Year</b> : 2018-19
<b>Course No.</b> : H/BOT 111	<b>Title</b> : Introductory Crop Physiology	
<b>Credits</b> : 2(1+1)	<b>Time</b> : 09.00 to 11.00	<b>Total Marks</b> : 40
<b>Day &amp; Date</b> : Friday, 21.12.2018		

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

- Q.1 Define photosynthesis. Describe in detail factors affecting rate of photosynthesis.
- Q.2 Define transpiration. Explain the factors affecting the rate of transpiration.
- Q.3 Define drought. Enlist different types of stresses and explain any one.
- Q.4 Define water potential. Explain different components of water potential.
- Q.5 Define photophosphorylation. Describe in detail non cyclic photophosphorylation.
- Q.6 Explain the leaf anatomy and Hatch and Slack cycle of C<sub>4</sub> plants.
- Q.7 Define ascent of sap. Describe in brief transpiration pull theory of ascent of sap.
- Q.8 Define essential elements. Describe Mengel's classification of plant nutrients.
- Q.9 Define photorespiration. Explain the mechanism of photorespiration.
- Q.10 Write short notes (Any Two):
- a) Opening and closing of stomata
  - b) Passive absorption
  - c) Chloroplast

**SECTION "B"**

- Q.11 Define the following terms .
- 1) Imbibition
  - 2) Plasmolysis
  - 3) Diffusion
  - 4) Crop Physiology
- Q.12 Answer in one sentence.
- 1) Which is the site of light reaction?
  - 2) Enlist one example of CAM plants.
  - 3) What is meant by autotrophs?
  - 4) Enlist one example of C<sub>3</sub> plants.

