

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Hons.) Horticulture

Semester : II (New)	Term : II	Academic Year : 2017-18
Course No. : H/ENGG 121	Title : Water Management in Horticultural Crops	
Credits : 2 (1+1)		
Day & Date : Saturday, 05.05.2018	Time : 09.00 to 11.00	Total Marks : 40

- 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 Elaborate the role of water in plant growth.
- Q.2 Enlist the different methods of irrigation and explain drip system of irrigation with its merits and demerits.
- Q.3 Define infiltration and describe the factors affecting-infiltration of water.
- Q.4 Explain in brief Lysimeter with suitable diagram.
- Q.5 Enlist the criteria for judging the quality of irrigation water and describe boron contribution.
- Q.6 a) Enlist the methods of estimating evapo-transpiration.
b) What are the factors affecting water requirement?
- Q.7 Write in brief on available water and unavailable water.
- Q.8 Write short notes (Any Two).
a) Field capacity b) Water resources in India c) Pan evaporimeter
- Q.9 Describe effect of Moisture Stress and excess moisture on citrus and grape growth.
- Q.10 Enlist the different component of sprinkler irrigation system. Write down advantages and disadvantages of fertigation.

SECTION "B"

- Q.11 Define the following terms.
- 1) Effective root zone
 - 2) Water use efficiency
 - 3) Hygroscopic water
 - 4) Consumptive use
- Q.12 Fill in the blanks.
- 1) The soil moisture content at permanent wilting point is _____ bars.
 - 2) The force of attraction that binds molecules of same kind is _____.
 - 3) _____ exhibits water stress symptoms and use as indicator plant for scheduling irrigation.
 - 4) Artificial application of water to the land is called _____.

