

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD
SEMESTER END EXAMINATION

B. Sc. (Hons.) A.B.M.

Semester	: II (New)	Term	: II	Academic Year	: 2018-19
Course No.	: SSAC 122	Title	: Soil, Water And Plant Analysis		
Credits	: 2 (1+1)	Time	: 09.00 to 11.00	Total Marks	: 40
Day & Date	: Tuesday, 07.05.2019				

- 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 What is Nutrient mobility? Explain the mobility of various nutrients within plants.
- Q.2 Give the importance and objectives of soil, water and plant analysis.
- Q.3 Describe how the processes of Mass flow. Diffusion affect nutrient uptake.
- Q.4 What is the composition of soil air? Explain the factors affecting the composition of soil air.
- Q.5 Write short notes (Any Two):
- a) Soil Pollution
 - b) Water Pollution
 - c) Basic principle of pH meter
- Q.6 Describe the role of soil microorganisms in soil health.
- Q.7 What are the management practices for acid soils?
- Q.8 Describe the effects of saline water irrigation on plant growth.
- Q.9 Explain the reclamation and management of saline soil by chemical and mechanical methods.
- Q.10 Describe the chemical and mineral composition of horticultural crops.

SECTION "B"

- Q.11 Define the following terms.
- 1) Nutrient
 - 2) Leaching
 - 3) Soil
 - 4) Diffusion
- Q.12 Fill in the blanks.
- 1) EC of alkali soils is less than _____.
 - 2) Soil analysis has been used as an aid to assessing _____.
 - 3) The technique of emission flame photometry is used for determining _____ and _____ in biological fluids.
 - 4) _____ and _____ are immobile nutrients.

