

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester : I (New)	Term : First	Academic Year : 2022-23
Course No. : H/SSAC 111	Title : Fundamentals of Soil Science	
Credits : 2 (1+1)	Time : 10:00 to 12:00 hrs.	Total Marks : 40
Day & Date : Tuesday, 21.03.2023		

- 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 diagram wherever necessary.

SECTION 'A'

- Q.1 Define soil texture and explain in detail the importance of soil texture.
- Q.2 What is soil pH? Explain the effects of soil pH on availability of nutrients.
- Q.3 Differentiate between bulk density and particle density.
- Q.4 Define soil air and explain factors affecting the composition of soil air.
- Q.5 What are soil colloids? Explain in brief any four properties of soil colloids.
- Q.6 Describe the importance of soil water and give its physical classification.
- Q.7 What are salt affected soils? Explain main characteristics of salt affected soils.
- Q.8 Explain in brief land capability classes.
- Q.9 Define soil structure and explain types of soil structure.
- Q.10 Write down the effects of soil temperature on soil and plant growth.

SECTION 'B'

- Q.11 Fill in the blanks:
- 1) Size of clay particle is less than _____ mm.
 - 2) _____ is the relative purity or strength of the spectral colour.
 - 3) The process of precipitation and accumulation of calcium carbonate is called as _____.
 - 4) Classification of aerial photography on the basis of small scale should be less than _____.
- Q.12 Do as directed:
- 1) Define cation exchange capacity of soil.
 - 2) Who is called as the 'Father of Soil Science?'
 - 3) Give the composition of soil.
 - 4) Give one example each of rapidly and very slowly decomposed organic matter.

