

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Hons.) Horticulture

Semester : I (New)	Term : I	Academic Year : 2019-20
Course No. : H/SSAC 111	Title : Fundamentals of Soil Science	
Credits : 2(1+1)	Time : 10.00 to 12.00	Total Marks : 40
Day & Date : Wednesday, 01.01.2020		

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.

Shri Shiva, College of Horticulture
AMRAVATI
Library Department

SECTION "A"

- Q.1 a) What is soil structure? State the importance of soil structure.
b) Define soil porosity and state the factors affecting soil porosity.
- Q.2 a) Distinguish between bulk density and particle density.
b) Define soil texture and classify the soil particles based on their size.
- Q.3 a) Define soil. Give the elemental composition of the earth crust.
b) Enlist the fundamental and specific soil forming processes.
- Q.4 Explain the importance of soil temperature in agriculture.
- Q.5 a) What is humus? Enlist the properties of humus.
b) Define soil organic matter and give composition of plant residues.
- Q.6 What is aerial photography? Explain factors affecting aerial photography.
- Q.7 a) What is soil survey? Enlist the different types of soil survey.
b) Explain in brief the land capability classification.
- Q.8 Define soil erosion. Give the different types of soil erosion.
- Q.9 a) What are the characteristics of saline, saline - sodic and sodic soils?
b) Define soil colloid. Enlist general properties of soil colloids and explain any one.
- Q.10 Write short notes. (Any Two)
- a) Significance of CEC
b) Importance of soil pH in nutrient availability
c) Significance of soil water
d) Soil order

SECTION "B"

- Q.11 Fill in the blanks.
- 1) The bulk density of soil is always _____ than its particle density.
2) Kaolinite is _____ type of clay mineral.
3) The CO₂ content is generally _____ in soil air than atmosphere.
4) Land capability classification is done in _____ classes.
- Q.12 Define the following terms.
- 1) Salinization
2) pF
3) Soil consistency
4) C:N ratio

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