MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: I (New)	**Term**	: I	**Academic Year**	: 2015-16
Course No.	: SSAC 111	**Title**	: Introduction to Soil Science		
Credits	: 3(2+1)				
Day & Date	: Tuesday, 08.12.2015	**Time**	: 10.00 to 13.00	**Total Marks**	: 80

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 a) Explain in detail the concepts of soil study.
b) Discuss the elemental composition of earth crust.

Q.2 a) Give classification of rocks on the basis of mode of formation with examples.
b) Define weathering. Enlist different types of weathering and explain any one of them.

Q.3 a) Describe the fundamental soil forming processes.
b) State Jenny's equation of soil formation and enlist soil forming factors.

Q.4 a) Enlist different physical properties of soil and explain any one of them.
b) Explain Stoke's law and classify soil separates based on international system.

Q.5 a) Define soil structure and explain its types with figures.
b) Explain the factors affecting soil temperature.

Q.6 a) Define soil colloids. Enlist the general properties of soil colloids.
b) What is CEC? Explain its importance in agriculture.

Q.7 a) Explain in brief soil moisture constants.
b) Draw a well labeled diagram of montmorillonite mineral.

Q.8 a) Give role of organic matter for improvement in soil properties.
b) Define soil texture and give its importance in agriculture.

Q.9 a) Define soil survey and explain different types of soil survey.
b) Explain in brief the types of soil erosion.

Q.10 a) List out the soil orders as per USDA soil classification system.
b) Describe in brief land capability classification.

(P.T.O.)

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SECTION "B"

Q.11 Define the following terms.

1) Soil
2) Soil biology
3) Soil profile
4) Soil erosion
5) Mineral
6) Infiltration
7) Bulk density
8) Exfoliation

Q.12 Answer the following in one sentence.

1) What is the streak of hematite?
2) What is principle law behind mechanical analysis of soil?
3) Which is the accepted hypothesis of origin of earth?
4) What is dyke?
5) Name the store house of plant nutrients in soil.
6) Give two examples of cementing agents in soil.
7) State Universal Soil Loss Equation.
8) Give volumetric composition of soil.

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