

Roll No. 

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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. Agriculture (2014 &amp; Onwards) (Sem.-1)

**SOIL SCIENCE-I**

Subject Code : BSAG-104

M.Code : 72211

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****1. Write short notes on the following :**

- a. Salinization
- b. Anion exchange Capacity
- c. Bulk density
- d. Percolation
- e. Drainage
- f. Leaching
- g. Micelle
- h. Alluvium
- i. Laterization
- j. Bed rock

### SECTION-B

2. Write the source of negative charge on silicate clay minerals.
3. Explain the composition of earth crust with the help of diagram.
4. Bulk density and particle density of a field were reported as 1.65 and 2.80 respectively. Calculate the percent porosity of soil.
5. Derive a relation among bulk density, particle density and porosity.
6. Enlist processes of soil formation and discuss role of any one in detail.

### SECTION-C

7. Define a Rock. Discuss the conditions under which different rocks are formed.
8. Derive mathematically Darcy's law showing movement of water under submerged conditions.
9. Discuss the conditions under which saline and sodic soils are formed. Also explain in detail about their reclamation.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**