

Roll No. Total No. of Pages: 02

Total No. of Questions: 09

B.Sc. (Agriculture) (2014 to 2018)/Hons. (Agriculture)

(Sem.-1)

**SOIL SCIENCE-I** 

Subject Code: BSAG-104

M.Code: 72211

Time: 3 Hrs. Max. Marks: 60

### **INSTRUCTIONS TO CANDIDATES:**

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

## **SECTION-A**

# W.F.II.S.IR. anker. com 1. Write short notes on the following:

- a. Colluvium
- b. Eluviation
- c. Volatilization
- d. Denitrificatiion
- e. Marshy soils
- Soil colloid
- g. Cation exchange capacity
- h. Bulk density
- i Infiltration rate
- j. Charge on clay micelle



## **SECTION-B**

- 2. Explain the composition of earth crust with the help of diagram.
- 3. Bulk density and particle density of a field were reported as 1.60 and 2.75 respectively. Calculate the percent porosity of soil.
- 4. Derive a relation among bulk density, particle density and porosity.
- 5. Enlist processes of soil formation and discuss role on **any one** in detail.
- 6. What is the source of negative charge on silicate clay minerals?

# **SECTION-C**

- 7. Derive mathematically Darcy's law showing movement of water under unsubmerged conditions.
- 8. Describe the conditions under which acidic soils are formed and write in detail about their reclamation.
- 9. Define rock and explain its detailed classification.

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.

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