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Total No. of Pages : 02

Total No. of Questions : 09

B.Voc.(Agriculture) (2018 & Onwards) (Sem.-1)

**SOIL SCIENCE**

Subject Code : BVAG-105-18

M.Code : 75653

Time : 3 Hrs.

Max. Marks : 30

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.
2. SECTION-B contains FIVE questions carrying 2<sup>1</sup>/<sub>2</sub> (Two and Half) marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying FIVE marks each and students have to attempt any TWO questions.

**SECTION-A**

**1. Write short notes on the following :**

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

### SECTION-B

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

### SECTION-C

7. Discuss beneficial and harmful effects of soil organism.
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.**