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Total No. of Pages : 02

Total No. of Questions : 18

B.Sc. (Hons) Agriculture (2019 Batch) (Sem.-1)

**FUNDAMENTALS OF SOIL SCIENCE**

Subject Code : BSAG-102-19

M.Code : 76925

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**

**Write short notes on the following :**

- Q1. Soil composition
- Q2. Colluvium
- Q3. Eluviation
- Q4. Soil structure
- Q5. Denitrification
- Q6. Cation exchange capacity
- Q7. Humic substances
- Q8. Micro-organisms
- Q9. Charge on clay micelle
- Q10. Soil colloid

### **SECTION-B**

- Q11. Explain formation of acidic soils and their reclamation.
- Q12. Explain processes of soil formation and discuss role on any one in detail.
- Q13. Discuss source of negative charge on silicate clay minerals.
- Q14. Bulk density and particle density of a field were reported as 1.64 and 2.75 respectively. Calculate the percent porosity of soil.
- Q15. Derive a relation among bulk density, particle density and porosity.

### **SECTION-C**

- Q16. Explain factors associated with availability of plant nutrients.
- Q17. Describe the conditions under which acidic soils are formed and write in detail about their reclamation.
- Q18. Discuss the role of soil organism in agriculture.

**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.**