

Total No. of Pages : 02

Total No. of Questions : 09

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

1. **Write briefly :**
 - a. Soil colloid
 - b. Colluvium
 - c. Eluviation
 - d. Soil taxonomy
 - e. Denitrificatiion
 - f. Cation exchange capacity
 - g. Humic substances
 - h. Micro-organisms
 - i. Charge on clay micelle
 - j. Soil composition

SECTION-B

2. Explain formation of acidic soils and their reclamation.
3. Enlist processes of soil formation and discuss role on **any one** in detail.
4. Discuss source of negative charge on silicate clay minerals.
5. Bulk density and particle density of a field were reported as 1.64 and 2.75 respectively. Calculate the percent porosity of soil.
6. Derive a relation among bulk density, particle density and porosity.

SECTION-C

7. Discuss factors associated with availability of plant nutrients.
8. Describe the conditions under which acidic soils are formed and write in detail about their reclamation.
9. Explain 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.