

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. Agriculture (2014 to 2018) (Sem.-7)

SOIL PHYSICAL AND BIOLOGICAL ENVIRONMENT

Subject Code : BSAG-CS701

M.Code : 74828

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**Q1. Write short notes on the following :**

- a) Soil Tilth
- b) Soil organism
- c) Bulk density
- d) Percolation
- e) Drainage
- f) Leaching
- g) Infiltration
- h) Movement of water in pores
- i) Eluviation
- j) C:N ratio

SECTION-B

- Q2. Discuss in detail the soil thermal regimes of humid and arid regions.
- Q3. Enlist factors of soil formation and discuss role on **any one** in detail.
- Q4. Explain different processes which affect soil temperature.
- Q5. Explain management techniques to check soil erosion.
- Q6. Discuss infiltration and redistribution of water in soil.

SECTION-C

- Q7. a) Explain in detail the factors which affect composition of soil-air.
- b) Explain Darcy's law in relation to movement of water in soil under saturated conditions.
- Q8. Derive mathematically Darcy's law showing movement of water under submerged conditions.
- Q9. a) Elaborate the role of soil organism in maintenance of ecological balance.
- b) Explain activities of soil micro-organism in development of soil.

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.