Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Agriculture) (2014 to 2018) (Sem.–3)

# SOIL CHEMISTRY, FERTILITY AND NUTRIENT MANAGEMENT

Subject Code : BSAG-307

M.Code : 72557

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 short notes on the following :**

(a) Essential plant nutrients

(b) Sodic soils

(c) Hidden hunger

(d) Calcareous soils

(e) Neem coated N fertilizers

(f) Soil test for fertilizers application

(g) Broadcasting

(h) Indicator plant

(i) Role of boron and molybdenum for plants

(j) Nutrient deficiency

## SECTION-B

2. Discuss measures to overcome deficiency and toxicity of nutrients in plant and soil.

3. Explain chemical and biological methods for reclamation of salt affected soils.

4. Explain RSC (residual sodium carbonate) and ESP (exchangeable sodium percentage).

5. How soil is considered as store house for plant nutrients?

6. Differentiate between mineralization and immobilization.

## SECTION-C

7. Describe and explain different methods of soil testing. Give critical limit of Ca, Mg, S, Zn, Cu, Fe and Mn for soil.

8. Discuss effect of fertilizers and insecticides on nutrient availability and soil health.

9. How alkaline soils are formed? Explain methodologies for their reclamation.



**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.**