Roll No.							Total No. of Pages: 02

Total No. of Questions: 09

# B.Sc. (Agriculture) (2014 & Onwards) (Sem. – 3) SOIL CHEMISTRY, FERTILITY AND NUTRIENT

M Code: 72557 Subject Code: BSAG-307 Paper ID: [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) Broadcasting
  - b) Secondary plant nutrients
  - c) Sodium adsorption ratio
  - d) Critical limit
  - e) Muriate of potash
  - f) Complete complex fertilizers
  - g) Macronutrients
  - h) Nutrient toxicity
  - i) Acid soil
  - j) Slow release P fertilizers

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## **SECTION B**

- 2. Discuss role of beneficial and essential plant nutrients for plant growth.
- 3. Give criteria of essentiality for different plant nutrients.
- 4. Discuss different chemical methods for reclamation of acidic soils.
- 5. Describe techniques to increase nutrient use efficiency.
- 6. How DRIS approach is beneficial for plant analysis?

## **SECTION C**

- 7. How alkaline soils are formed? Explain methodologies for their reclamation.
- 8. Explain methods of soil testing. Give critical limit of N, P, K, Ca, Mg, S, Zn, Cu, Fe and Mn for soil.
- 9. Discuss effect of fertilizers and insecticides on soil.

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