

This question paper contains 3 printed pages

Your Roll No.-----

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B.Sc.(Prog.) Sem.II
Applied Life Science with Agro Chemicals and pest Management.

Paper No.7: Agro Chemicals and Pest Management
(Soil and Fertilizer)

Time: 3 Hours

Maximum Marks :75

(Write your Roll No. on the top immediately on receipt of this question paper)

INSTRUCTION TO THE EXAMINEE :

Attempt any SIX questions . All questions carry equal marks.

| Serial No. of Questions | | No of Marks |
|-------------------------------|--|----------------|
| Q.1. (a) | Explain, in brief, what do you mean by 'soil separates'? What is the range of their particle size? | 6 |
| (b) | List the components of soil which provide the favorable conditions for plant growth? | 4 |
| (c) | Write the chemical form, in which, the following nutrients are taken up by plants for growth? (i) Nitrogen , (ii) phosphorous (iii) boron (iv) molybdenum (v) sulphur | 2½ |
| Q.2. (a) | Select Primary nutrients , Secondary nutrients and Micronutrients , from the following: Molybdenum, magnesium, potassium, manganese, copper. | 2½ |

Contd.

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| (b) | Explain, in brief, any <i>TWO</i> of the following: (i) Immobilization and mineralization of soil nitrogen (ii) Denitrification (iii) Losses of nitrogen from soil | 5,5 |
| 2.3. (a) | Write a detailed note on superphosphates and ammonium phosphates as fertilizers. | 9 |
| (b) | Explain with suitable examples, what do you understand by residual effect of fertilizers on soil? | 3½ |
| 2.4. (a) | For any of the following THREE nutrients discuss (i) deficiency symptoms (ii) form in which they are taken up by plant (iii) form in which they are available and applied to soil. (i) manganese , (ii) Copper , (iii) Calcium (iv) cobalt and (v)magnesium | 3½ x 3 |
| (b) | What do you understand by liming of soil? | 2 |
| Q.5. (a) | Give the classification of nitrogen fertilizers along with suitable examples in each category. | 7½ |
| (b) | Write an illustrative note on Nitrogen cycle. | 5 |

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| Q.6. | (a) | Explain, in brief, how the soils are formed? | 8 |
| | (b) | Calculate, how much N, P, and K are in a 25 kilogram bag of 20-12-5? | 4½ |
| Q.7. | (a) | Write a detailed note on potash fertilizers. | 8½ |
| | (b) | What do you mean by 'the bulk and particle densities of soil'? | 4 |
| Q.8. | (a) | Write a brief introduction for Biofertilizers. | 4 |
| | (b) | Write a detailed note on Phosphorous solubilizing biofertilizers. | 5½ |
| | (c) | Explain, in brief, the advantages of Biofertilizers. | 3 |