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

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc.(Agriculture) (2014 & Onwards) (Sem.–5)

CHEMISTRY OF AGROCHEMICALS

Subject Code : BSAG-503

Paper ID : [74167]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION 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. Answer briefly :

a) What do you mean by ESP? How is it calculated?

b) Discuss the importance of buffer action in Agriculture.

c) What is Bordeaux mixture? How is it beneficial in agriculture?

d) Give the difference between absorption and adsorption. What is sodium adsorption ratio?

e) Explain why Gypsum and calcium chloride can't be used for improvement of acid soils.

f) What is Pryanishnikov triangle? Discuss its significance.

g) What do you understand by sewage irrigation?

h) How will you classify phosphatic fertilizers? Give the names and importance of two phosphatic fertilizers.

i) Discuss the insecticidal activity of carbaryl.

j) What are herbicides? How will you classify them? Give examples.

SECTION-B

2. What are nitrogenous fertilizers? How will you classify them? Explain the action of urea and ammonium sulphate on soil.

3. What are organic insecticides? Classify them. Explain the synthesis and significance of any one synthetic organic insecticide of your choice.

4. State and explain the factors controlling soil reactions in brief details.

5. Discuss in details the ion exchange reactions in soil.

6. Discuss the structure, synthetic route and function of Tridemorph in details.

SECTION-C

7. a) What are botanical insecticides? Give their types with examples. Discuss the chemistry of neem in brief.

   b) Discuss in details the structure and synthetic strategy of benthiocarb, with its significance.

8. a) Write a detailed note on auxins. Give significance and synthetic route of any on auxin of your choice.

   b) Discuss in details the structure and synthetic strategy of 2, 4-D with its significance.

9. a) What are biofertilizers? How do biofertilizers improve crop productivity? Give examples of few biofertilizers along with their specific applications.

   b) Write a detailed note on Cytokinins. Give significance and synthetic route of any one Cytokinin of your choice.