Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions: 09

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

CHEMISTRY OF AGROCHEMICALS

M Code: 74167

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. Explain the following:

   a) Reaction of HCH with alcoholic KOH.

   b) Endo-exo isomerism exhibited by cyclodienes.

   c) Conditions for a compound to show geometrical isomerism.

   d) Structure of Butachlor.

   e) Various alternatives to the pesticides.

   f) Different conformations of ethane molecule.

   g) Advantages and disadvantages of pyrethroids.

   h) A method for the generation of:

      i) free radical

      ii) carbocation.

   i) Structure of carbamate having rapid knock down action on insects.

   j) Systemic and non-systemic pesticides.

SECTION B

2. Describe the general method of preparation of N-methyl carbamates and write down the synthesis of carbofuran.
3. Discuss he mechanism for the synthesis of DDT and its mode of action.
4. What are fungicides and give their classification and mode of action.
5. Write down the reactions of aldrin with Zn/AcOH and peracid.
6. Write a note n botanical insecticide.

SECTION C

7. What are herbicides? Explain the preparation of 2, 4-D, glyphosate and atriazine.
8. Explain plant growth regulators in details.
9. a) Give the method of preparation of chloropyriphos and diclorovos.

   b) What are pyrethroids. Write the basic structural formula of pyrithrins and structural formula of alcohols and acids.