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Your Roll No.

259

B.Sc. Prog./II

C

ACP-202 -Fertilizers, Herbicides, Fungicides

(Admissions of 2005 and onwards)

Time : 3 Hours

Maximum Marks : 75

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

Attempt any five questions.

All questions carry equal marks.

1. Answer the following :

- (a) Write two examples of nitrogen fertilizers.
- (b) Define pre-emergence and post-emergence herbicides with examples.
- (c) Define total herbicide and selectivity.
- (d) Write the structural formula of Propiconazole.
- (e) Define weedicides.

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2. Explain the following :

(a) Denitrification.

(b) Write the structural formula of Karathane and Kitazine.

(c) Detection of common salt in Urea.

(d) Ammonification.

(e) Foliar spray herbicides and environment.

3. (a) To which class of herbicide, do the following belong ?

2, 4-D and Dicamba.

(b) How would you differentiate between contact and systemic fungicides ? Explain with suitable examples.

(c) Write the structural formulae of *two* fungicides containing heavy metals, used for seed treatment only.

(d) Name *two* herbicides which act as growth regulator. Give structural formulae also.

(e) Depict the structure of MCPA and Diclone.

4. (a) Discuss the preparation of Bordeaux mixture with the help of chemical equations.

- (b) How is Benomyl prepared ? Explain with the help of chemical equations.
- (c) What are thiophanates ? Discuss their role in agriculture.
- (d) What is the basic unit of Dithiocarbamates ? Elaborate with an example.
- (e) Discuss dinitrophenols as fungicides.
5. (a) Illustrate the preparation of Paraquat with chemical equations.
- (b) With the help of chemical equations explain the preparation of a Herbicide, using 2-chlorobenzene sulphonyl isocyanate as a starting material.
- (c) Chlorosulfuron is not recommended in wet and light soil. Explain.
- (d) Discuss the action of herbicides used against broad leaved plants. Give its structural formula.
- (e) How would you prepare Simazine ? Write the chemical equations and explain.

6. (a) Discuss pre-emergence and post-emergence herbicides with suitable examples.
- (b) Write the structural formula of Bromocil and Monuron.
- (c) What are carbamate fungicides ? Give at least two examples.
- (d) What is the structural difference between Nabam and Ziram ?
- (e) What do you understand by fumigation ? Explain with a suitable example.
7. Write short notes on the following :
- (a) Macronutrients
- (b) Chemical fertilizers and environmental pollution
- (c) Nitrification.