

- (b) Write the general chemical equation for the preparation of a dithiocarbamate from Ethylene diamine, carbon disulphide and sodium hydroxide solution. Give the name of the product formed.
- (c) What is the difference between Bordeaux mixture and Burgundy mixture? Write the chemical equation involved in their preparation. (4,5,6)
6. (a) Give the full name, structure, uses and mode of action of MCPA. Also comment on its toxicity.
- (b) Which chemical class of herbicide does Dicamba belong? Draw the structure and comment on its mode of action.
- (b) Give the full name, structure and uses of DNOC. (6,6,3)

(200)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5857

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Unique Paper Code : 2172582402

Name of the Paper : DSC: Fundamentals of Agrochemistry

Name of the Course : B.Sc. (Hons.) Applied Life Sciences with Agrochemicals and Pest Management

Semester : IV

Duration : 2 Hours Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
 2. Attempt any **Four** questions in all. All questions carry equal marks.
-
1. (a) 2,4-Dichlorophenoxy acetic acid has herbicidal activity. Explain, why 2,4-dichlorophenoxy propanoic acid does not show herbicidal activity?

P.T.O.

(b) Define any **Three** of the following :

- (i) Antifeedant
- (ii) Acaricides
- (iii) Protective fungicides and Curative fungicides
- (iv) Selective herbicide and non-selective herbicide

(c) Define any **Three** of the following terms :

- (i) Fungistat
- (ii) Antisporulant
- (iii) Eradicants
- (iv) Protectants (6,6,3)

2. (a) Draw the structure of *Any Three* of the following pesticides. Give the chemical class to which these belong and encircle/indicate the main functional group present :

- (i) Nabam
- (ii) Carbaryl
- (iii) Parathion
- (iv) DDT

(b) How the presence of weeds impacts the yield of crops? Explain. (9,6)

3. (a) What are rodenticides? Comment how aluminium phosphide acts as a rodenticide?

(b) Explain in brief, what do you mean by LD₅₀?

(c) The Acute oral (Mammals) LD₅₀ of four pesticides Dalapon, Thiram, Dicamba and Ziram are 9330 mg/kg, 750 mg/kg 1465 mg/kg and 1400 mg/kg respectively. Arrange them in decreasing order of toxicity giving suitable explanation. (5,3,7)

4. (a) Explain the human health hazards associated with use of pesticides. Support your answer by taking any four examples of pesticides of your choice.

(b) Dichlone belongs to which chemical class of fungicide? Write its structure and comment on its mode of action. (10,5)

5. (a) What do understand by pesticides formulation? If formulation of a herbicide is labelled as 50% EC, what does it mean?