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S. No. of Question Paper : 78

Unique Paper Code : 217377

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Name of the Paper : Paper 12 : Herbicides

Name of the Course : B.Sc. Applied Life Science with ACPM

Semester : III

Duration : 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. Discuss the following :
  - (a) Weedicide with suitable example.
  - (b) Non-selective herbicide with suitable example.
  - (c) Pre-emergence herbicide with example.
  - (d) Contact herbicide with examples.
  - (e) Non-target effects of Herbicide application.
2. Depict the structural formula for the following :
  - (a) 2, 4-D and Asulam
  - (b) Glyphosate and Monuron
  - (c) Dichlorobenil and Bromocil

P.T.O.

- (d) Paraquat and Barban
  - (e) Dalapon and Simazine
3. What happen when :
- (a) Glyphosate is used in soil containing iron.
  - (b) Chlorosulfuron is used in soil with low pH.
  - (c) Monuron is hydrolyzed.
  - (d) Simazine is dealkylated.
  - (e) Paraquat is used in wet soil.
4. (a) Name *two* herbicides which act as growth regulator.
- (b) Discuss the role of chlorosulfuron as inhibitor of plant growth.
  - (c) Discuss the action of photosynthesis inhibitor herbicide.
  - (d) Discuss the preparation of 2, 4-D with chemical equations.
  - (e) Discuss the preparation of Dalapon with chemical equations.
5. (a) Discuss the preparation of Herbicide using 2-chlorobenzene sulphonyl isocyanate as one of the reactant. Give chemical equations.
- (b) With the help of chemical equations discuss the preparation of Glyphosate.
  - (c) What happens when Glyphosate is used in alkaline medium ?
  - (d) What happens when dalapon absorbs water ? Give chemical equation.
  - (e) Discuss the role of  $\text{H}_2\text{O}_2$  as toxicant during herbicide application.

6.
  - (a) Discuss the preparation of isoproturon with the help of chemical equation.
  - (b) Chlorosulfuron is not recommended to apply in wet and light soil. Explain.
  - (c) Why is paraquat an effective contact herbicide ? Explain.
  - (d) Discuss the action of simazine as herbicide.
  - (e) Discuss the preparation of Dicamba with chemical equations.
7.
  - (a) Discuss the preparation of dichlobenil with chemical equations.
  - (b) Write down the chemical equations for the preparation of a total Herbicide using Pyridine as starting material.
  - (c) What is the nuclear skeleton of a triazine ? Give an example.
  - (d) Write down the structural formula of two soil active herbicides.
  - (e) Discuss the use of Paraquat in chemical ploughing.