

**2024/TDC (CBCS)/EVEN/SEM/  
CHMSEC-601T/310**

**TDC (CBCS) Even Semester Exam., 2024**

**CHEMISTRY**

**( 6th Semester )**

Course No. : CHMSEC-601T

**( Pesticide Chemistry )**

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks  
for the questions*

**UNIT—I**

**1. Answer any *three* of the following questions :**

**1×3=3**

- (a) What is the full form of BHC?
- (b) Define the term 'LD<sub>50</sub>'.
- (c) What are algaecides?
- (d) Give one example of agricultural pest.

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2. Answer any one of the following questions : 2

(a) Define the term 'pesticides'. Write the classification of pesticides on the basis of target species.

(b) What is meant by natural pesticide? Write two harmful effects of bollworms.

3. Answer any one of the following questions : 5

(a) Write short notes on the following :  
 $2\frac{1}{2} \times 2 = 5$

(i) Agricultural pests

(ii) Synthetic pesticides

(b) What are agricultural pests? Discuss the harmful effects caused by agricultural pest and its management.  
 $1 + 4 = 5$

#### UNIT—II

4. Answer any three of the following questions :  
 $1 \times 3 = 3$

(a) What are carbamates?

(b) Mention two benefits of synthetic pesticides.

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(c) Write any one symptom of carbamate pesticide poisoning.

(d) Mention two adverse effects of pesticides.

5. Answer any one of the following questions : 2

(a) How does pesticide affect the central nervous system?

(b) What are the symptoms of organo-phosphate pesticide poisoning?

6. Answer any one of the following questions : 5

(a) Describe the symptoms and medical treatment of carbamate pesticide poisoning. Mention two toxic effects of organochlorines.  
 $3 + 2 = 5$

(b) Discuss the sources and environmental effects of pesticide residues. 5

#### UNIT—III

7. Answer any three of the following questions :  
 $1 \times 3 = 3$

(a) What is meant by pesticide formulation?

(b) Give one example of biopesticide.

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- (c) What is suspension in liquid formulation?
- (d) Give one example of diluent used in pesticide formulation.
8. Answer any one of the following questions : 2
- (a) Define suspension concentrate (SC) and colloidal solution associated with pesticide formulation.
- (b) What are biopesticides? Write two characteristics of biopesticides.
9. Answer any one of the following questions : 5
- (a) Give a detailed account of dry and liquid formulations. 5
- (b) What is meant by microencapsulated formulation? Discuss the mechanism of action and application of *Bacillus thuringiensis*. 1+4=5

UNIT—IV

10. Answer any three of the following questions : 1×3=3
- (a) What are fungicides?
- (b) Give one example of nematocide.

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( Continued )

( 5 )

- (c) "DDT is a fungicide." Write True or False.
- (d) Draw the structure of DDT.
11. Answer any one of the following questions : 2
- (a) What are insecticides? Explain the mode of action of DDT.
- (b) Give one example of fungicide and explain its mode of action.
12. Answer any one of the following questions : 5
- (a) Draw the structure of any one organophosphate insecticide. Discuss its mode of action and uses. 5
- (b) What are nematocides? Taking one example, discuss its mode of action and harmful effects. 1+4=5

UNIT—V

13. Answer any three of the following questions : 1×3=3
- (a) "Gammaxene is an organochlorine pesticide." Write True or False.
- (b) Melathion comes under which category of pesticides?

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( Turn Over )

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(c) Draw the structure of alachlor.

(d) Write one use of chloranil.

14. Answer any one of the following questions : 2

(a) Write two uses and side effects of DDT.

(b) Write a brief note on synthesis of chloranil pesticide.

15. Answer any one of the following questions : 5

(a) Write the manufacture of gammaxene.  
Mention its uses. 3+2=5

(b) Discuss the synthesis and uses of carbamates. 5

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