

<b>Name:</b>	
<b>Enrolment No:</b>	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination, December 2021**

<b>Course : Pesticide Chemistry</b>	<b>Semester : III</b>
<b>Program : B.Sc. (H) Chemistry</b>	<b>Time : 03 hrs</b>
<b>Course Code: CHEM 2017K</b>	<b>Max. Marks: 100</b>

**SECTION A**

- 1. Each Question will carry 4 Marks**  
**2. Instruction: Complete the statement / Select the correct answer(s)**

S. No.	Questions	CO
Q1	Mention the meaning of (i) Plant quarantine and (ii) Lethal factor. (2*2)	CO1
Q2	Define the below mentioned terms. (i) Weed agents and (ii) Defoliation ability (2*2)	CO1
Q3	Synergism is a common mode of action of pesticides. Provide any two examples of the same, with its definition. (4)	CO1
Q4	Of the following method of pest control, discuss any one with a neat statement and sketch. (i) Chemical (ii) Mechanical and (iii) Physical method of pest control. (4)	CO2
Q5	(i) Mention any two molecular modelling packages useful in QSAR. (ii) Describe the term Molar refractivity used in QSAR. (2*2)	CO2

**SECTION B**

- 1. Each question will carry 10 marks**  
**2. Instruction: Write short / brief notes**

Q6	Define the below mentioned terms in detail. (i) Phytoalexins, (ii) Toxicols, (iii) Resurgence, (iv) Phytotoxicity and (v) Adjuvant. (2*5)	<b>CO1</b>
<b>OR</b>		
(i) Provide the information about systematic insecticides. (ii) Arrange the solubility of DDT in increasing order in the below mentioned solvents. Water, chloroform, benzene and acetone. (iii) What do you mean by the terms LD <sub>50</sub> and Log P. (4+2+4)		
Q7	QSAR techniques is a promising tool for development of potential pesticide compound. Describe the above technique in detail. (10)	<b>CO2</b>

Q8	Write down the name and structure of any five chemicals belonging to stomach/contact poison in the field of pesticide chemistry. (10)	<b>CO3</b>
Q9	Discuss the preparation technique of pesticide named Alachlor and Chloranil. (10)	<b>CO3</b>
<b>SECTION-C</b>		
<b>1. Each Question carries 20 Marks.</b> <b>2. Instruction: Write long answer.</b>		
Q10	Define the below mentioned terms of pest management with their uses in detail (i) Kaolin clay, (ii) Resurgence, (iii) Bio-Pesticides, (iv) Bio-magnification and (v) Traps. (5*2)  <p style="text-align: center;"><b>OR</b></p> Describe in details with a neat diagram of diverse means of entries of pesticide in the human body, alongwith their rate of absorption in increasing order. (10)	<b>CO2</b>
Q11	(i) Write an exhaustive note on Organochlorines mentioning the method of preparation with uses. (ii) Discuss the structure, method of preparation and applications of any two pesticides belonging to the organophosphate. (2*10)	<b>CO3</b>