

[43]

SEAT No. \_\_\_\_\_

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY  
T. Y. B. Sc. (FIFTH SEMESTER) EXAMINATION

2019

WEDNESDAY, 13<sup>th</sup> NOVEMBER

Time: 10.00 a.m. to 01.00 p.m.

US05CENV02 (ENVIRONMENTAL SCIENCE)  
(PESTICIDE, HERBICIDE, FUNGICIDE TOXICOLOGY)

- Note: 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer book only  
2. Figures to the right indicate the full marks of sub question  
3. Draw neat and labelled diagrams wherever necessary

Maximum Marks: 70

Q.1. Multiple choice questions (10)

1. \_\_\_\_\_ protein act as storage depot.  
a. Serum albumin    b. Transferrin    c.  $\alpha$ -lipoprotein    d. All of these
2. \_\_\_\_\_ substance readily pass through all membranes by simple diffusion.  
a. Lipophilic    b. Hydrophilic    c. Both of these    d. None of these
3. The most important enzyme system of MMFO is \_\_\_\_\_.  
a. Epoxide hydrolase    b. Esterases    c. Amidases    d. Cytochrome P-450
4. \_\_\_\_\_ is highly lipophilic pesticide.  
a. Chlordane    b. DDT    c. Polychlorinated Biphenyl    d. All of these
5. Pesticide used for killing target organisms by their vapour action is called \_\_\_\_\_.  
a. Exogenous poison    b. Endogenous poison    c. Contact poison    d. Fumigants
6. Half-life of DDT in humans range from \_\_\_\_\_.  
a. 1-2 years    b. 0.25-0.50 years    c. 3-4 years    d. 0.5-0.7 years
7. The entry that permits only hydrophilic substance finally reach to cytoplasm is called \_\_\_\_\_.  
a. Non-polar    b. Polar    c. Nonionized    d. None of these
8. \_\_\_\_\_ herbicide is called as bleaching agents.  
a. Pigment inhibitor    b. Seedling growth inhibitor  
c. Plant growth regulator    d. None of above
9. \_\_\_\_\_ fungicide is used as seed protectant.  
a. Captan    b. Fyton    c. Ziram    d. Dichlone
10. \_\_\_\_\_ is commonly known as Tikka disease.  
a. Leaf blight    b. Stem rot    c. Sheath blight    d. Leaf spot

(1)

(P.T.O.)

1 of 2

**Q. 2. Answer the following questions in short (Any Ten) (20)**

1. Define Bioassay.
2. Enlist the sites of absorption of xenobiotics
3. Describe Biomagnification.
4. What is Detoxification and Bioactivation?
5. Draw structure of DDT and Dieldrin insecticides
6. Classify pesticides based on target organisms
7. Enlist morphological response to herbicide by plants.
8. Describe Symplastic movements of herbicide.
9. Give details of Plant growth regulator herbicide.
10. Name the disease controlled by DICHLONE fungicide
11. Name diseases controlled by Ziram fungicide
12. Write properties of Benomyl fungicides

**Q. 3. a. Write a detailed note on the storage depots of toxicants in human body. (05)**

**b. Write a note on excretion of xenobiotics. (05)**

**OR**

**Q. 3. Describe in detail about Phase II reaction of biotransformation of Xenobiotics. (10)**

**Q. 4. a. Write a detailed note on organophosphate insecticides. (06)**

**b. Enlist uses of pesticides. (04)**

**OR**

**Q. 4. a. Classify pesticides based on various methods. (06)**

**b. Write a short note on: DDT in environment. (04)**

**Q. 5. a. Write in brief about effects of Dalapon herbicide on the growth and plant structure. (05)**

**b. Give a note on molecular fate of Phenoxy herbicide. (05)**

**OR**

**Q. 5. a. Explain the absorption and translocation of Triazine and its effect on plant growth. (05)**

**b. Write about soil application of and draw the hypothetical diagram of representing herbicide absorption of herbicide. (05)**

**Q. 6. Write a detailed note on Copper fungicides. (10)**

**OR**

**Q. 6. a. Write a detail note on Dichlone Fungicide. (05)**

**b. Write about Benomyl fungicides. (05)**

~~X~~  
2