

PG CBCS
M.SC. Semester- III Examination, 2021
ZOOLOGY
 PAPER: ZOO 301
(BASIC & APPLIED ENTOMOLOGY AND ECOTOXICOLOGY)

Full Marks: 40**Time: 2 Hours**

Write the answer for each unit in separate sheet

UNIT: ZOO 301.1

(Basic & Applied Entomology)

Answer any TWO questions of the following: 2X10=20

1. Discuss in brief the reasons of success of class Insect. What are the general functions of pheromones? Give examples. 6+3+1
2. Write the nature of damage and management of any one jute pest. Describe the structure and functions of chloride cell in insects with necessary diagram. 4+6
3. Discuss the mechanism and control of light production in insects. Describe saltatorial legs in insects. Comment on halteres citing an example. 6+3+1
4. What is clypeolabral suture? Write a note on filter chamber in insects. Describe the hormonal regulation of metamorphosis in insects. 2+3+5
5. Write a note on the use of insects for food. What is Pheromones? Write a note on trail marking Pheromones. Briefly discuss the advantages and disadvantages of IPM. 3+3+4

UNIT: ZOO 301.2

(Ecotoxicology)

Answer any TWO questions of the following: 2X10=20

1. Define acute toxicity and describe evaluation of LD 50. Write down the factors affecting acute toxicity. 2+6+2
2. What are genotoxic carcinogen and epigenetic carcinogen? Describe the mechanism of action of genotoxic carcinogen. 2+2+6
3. What is universal antidote? Describe the principle of antidotal treatment. What do you mean by chelation therapy? 3+3+4
4. What do you mean by biotransformation? Briefly describe the phase I and phase II reaction of biotransformation. 2+4+4
5. Discuss the principles of toxic kinetics and toxic dynamics with special emphasis on any xenobiotic component. 10
