Zoology (P.G.)

[CBCS]

M.Sc. Third Semester End Examination-2023

(Regular & Supplementary Paper)

PAPER-301

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

[USE SEPARARE ANSWER SCRIPT IN EACH GROUP]

Group A

Full Marks 20

[Basic and Applied Entomology]

1. Answer any two questions of the following: **2x2= 4**

a. What do you mean by apolysis?

b. What is prothorasic gland? Mention its function.

c. State the function of Luciferin and Luciferase.

d. State the chemical nature and empirical formula of chitin.

2. Answer any two questions of the following: **2x4= 8**

a. What is Pulvillus? State its function. 1+3

b. Write a note on Trial marking pheromone.

c. State the difference between insect control and IPM. Name one spiccies specific insecticide.

d. Write down the modifications of procuticle and epicuticle.

3. Answer any one question of the following: 1x8=8

a. What is pest? Write down the nature of damage and control of any one peddy pest studied by you.

b. State the neuroendocrine control of moulting and metamorphosis of insects.

Group B

Full Marks 20

[Ecotoxicology]

4. Answer any two questions of the following: 2x2= 4

a. State the difference between toxicology and Eco toxicology

b. What is xenobionts? Give one example.

c. State the difference between metagenic and carcinogenic toxius.

d. Differentiate between toxicology and Eco toxicology

5. Answer any two questions of the following: 2x4= 8

a. State the difference between LC_{50} LD_{50}.

b. Write a note on bioaccumulation.

c. Write a basic mechanism of DNA damage.

d. State on does response curve in toxicity testing.

6. Answer any one question of the following: 1x8=8

a. Write a note on phase I & phase II reaction in the detoxification process of toxicant.

b. Write the physical and chemical properties of any xenobionts. Write a note on the biotransformation process of any xenobionts. 4+6
