

Zoology (P.G.)

[CBCS]

M.Sc. Third Semester End Examination-2024

(Regular & Supplementary Paper)

PAPER-ZOO-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 separate answer script for each group)

Group A

Marks 20

(Entomology)

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

- a. What is aristate antennae with example?
- b. What is prothoracic gland? Mention its function?
- c. State the chemical nature and empirical formula of chitin.
- d. Define lentic and lotic insect communities.

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

- a. State the difference between Economic Injury level and Economic Threshold Level.

(2)

- b. Write a short note on Trail marking pheromone.
- c. State the function of filter chamber and peritrophic membrane of insects.
- d. State the difference between insect control and IPM. Name one species specific insecticide.

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 jute pest studied by you.
- b. State the neuroendocrine control of moulting and metamorphosis of insects.

Group B

Marks 20

(Ecotoxicology)

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

- a. State the difference between toxicology and ecotoxicology.
- b. What is xenobiotics? Give one example?
- c. State the difference between neuro toxic and mutagenic toxin.
- d. State the difference between LC_{50} and LD_{50} .

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

- a. Write a note on bioamplification.

(3)

- b. Explain chelation therapy.
- c. State the important features on biotransformation.
- d. What do you mean by immunotoxicology? Write about its division with suitable example.

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

- a. Write a note on phase I and phase II reactions in the detoxification process of toxicants.
- b. Write about difference cells and proteins which are indicators of immunotoxicology. Mention one name which can reduce the hypersensitivity with proper reason. **6+2**

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