

2025

M.Sc. 3rd Semester Examination

ZOOLOGY

Paper : ZOO - 301

(Entomology)

Full Marks : 25

Time : One Hour

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Answer any *two* questions : $2 \times 2 = 4$

1. What traits are shared by insects in the order Coleoptera? Give an example of Coleopteran insect. 1+1
2. What is the difference between Entognatha and Insecta? 2
3. What do you mean by elytra and halteres? Name two apterygote orders under insecta. 1+1
4. Define Economic injury level and Economic threshold level of IPM. 1+1

Answer any *two* questions : $4 \times 2 = 8$

5. State the difference between Prognathous and Hypognathous insect head? Explain Fossorial leg with suitable example. 2+2

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6. Describe the neuroendocrine regulation of insect ecdysis and metamorphosis. 4
7. What do you mean by bioluminescence? Describe the different steps of chemical reaction during light production in insects. 1+3
8. Discuss the advantages of using insects in biological monitoring of aquatic environments. 4

Answer any *one* question : $8 \times 1 = 8$

9. How many Hemipteran species are known to attack betel vine? Name one hemipteran pest and explain how it damages the crop. How can it be controlled? 1+1+3+3
10. What do you mean by peritrophic membrane of insects? Describe its formation, structure and functions. 1+2+2+3

Internal Assessment : 5 marks
