



WEST BENGAL STATE UNIVERSITY  
B.Sc. Honours 5th Semester Examination, 2023-24

ZOOADSE02T-ZOOLOGY (DSE1/2)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

1. Answer any **eight** questions from the following:

2×8 = 16

- What is spermatheca?
- Distinguish between tergum and sternum.
- Differentiate between hypognathous and opisthognathous insects.
- Define allelochemicals with examples.
- What are sclerites?
- Distinguish between apposition and superposition eyes.
- Name two insects that can turn their heads. What is 'Royal Jelly'?
- What is trophallaxis?
- What is hemocyte?
- Draw and label a typical leg in an insect.
- Define capitate antenna with examples.
- Name the vectors of yellow fever and encephalitis.

2. Answer any **three** questions from the following:

3×3 = 9

- Describe the caste system in termites.
- What do you mean by dance language of honey bees? Write about the round dance and waggle dance of honey bees.
- Write short note on:
  - Dead heart
  - Fungus garden.
- Mention the order of the following insects
  - Ant
  - Grasshopper
  - Stick insect
  - Weevil
  - Moth
  - Mosquito
- What does PTH stand for? From where is it secreted? Mention the role of PTH in insect development.

1+2

1+1+1

3. Answer any **three** questions from the following:

5×3 = 15

- Describe tracheal respiration in insects with suitable diagrams.
- Describe the nervous system of an insect with suitable diagrams.
- Mention characteristic features of the following insect orders. Give examples (scientific names) of each order.
  - Coleoptera
  - Diptera
- Describe different types of insect wings with their adaptive significance.
- What is co-evolution? Define any three types of co-evolution with suitable examples. What are hamuli?

2½+2½

1+3+1

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