

MZOE-004

ASSIGNMENT BOOKLET

M.Sc. (Zoology) Programme

(MSCZOO)

(INSECT TAXONOMY AND MORPHOLOGY)

Valid from 1st January, 2026 to 31st December, 2026



**School of Sciences
Indira Gandhi National Open University
Maidan Garhi, New Delhi-110068**

(2026)

ASSIGNMENT

(Tutor Marked Assignment)

Course Code: MZOE-004
Assignment Code: MZOE-004/TMA/2026
Maximum Marks: 100

Note: Attempt all questions. The marks for each question are indicated against it.

1. a). Describe the morphological adaptations of Apterygota to their specific habitats. How do they thrive in environments such as leaf litter, soil, and caves etc.? (5)
- b). Write about the characters of order Dermaptera, and Embioptera. (5)
2. Write the distinguishing characters of three economically important suborders of Hemiptera. (10)
3. Give the outline classification of division Endopterygota with all its orders and suborders alongwith suitable examples. (10)
4. Discuss ant foraging strategies, trophallaxis, and defence mechanisms in ants. (10)
5. Explain the structure of insect cuticle with suitable diagrams. (10)
6. With the help of neat labelled diagram describe different types of mouthparts found in insects. Give examples. (10)
7. Explain variations in thoracic segmentation across different insect taxa. (10)
8. Give a comprehensive note of different types of legs, their modifications and function in insects. (10)
9. a). What are spermatodesms? How are they formed in Orthoptera and Odonata? (5)
- b). Describe the process of ovulation in insects and its significance in reproduction. (5)
10. Explain the hormonal control and regulation of insect development by JH, PTTH and ecdysone hormone. (10)