MZOE-006

ASSIGNMENT BOOKLET

M.Sc. (Zoology) Programme

(MSCZOO)

(APPLIED ENTOMOLOGY)

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

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

(2026)

Dear Student,

Please read the Section on assignments in the Programme Guide for M.Sc. (Zoology). A weightage of 30 per cent, as you are aware, has been earmarked for continuous evaluation, which would consist of one tutor-marked assignment for this course. The assignment is in this booklet. The total marks for this assignment is 100, of which 40 marks are needed to pass it.

Instructions for formatting your Assignments

Before attempting the assignment please read the following instructions carefully:

1) On top of the first page of your answer sheet, please write the details exactly in the following format:

ROLL NO.: ……

NAME: ……...

ADDRESS: ……

……

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COURSE CODE: …….

COURSE TITLE: …….

ASSIGNMENT NO.: ……..….

STUDY CENTRE: .……..…..... **DATE:** ……..…….

PLEASE FOLLOW THE ABOVE FORMAT STRICTLY TO FACILITATE EVALUATION AND TO AVOID DELAY.

2) Use only foolscap size writing paper (but not of very thin variety) for writing your answers.

3) Leave 4 cm margin on the left, top and bottom of your answer sheet.

4) Your answers should be precise.

5) Solve this assignment, and **submit the complete assignment answer sheets within the due date.**

6) The assignment answer sheets are to be submitted to your Study Centre within the due date. **Answer sheets received after the due date shall not be accepted. We strongly suggest that you retain a copy of your answer sheets.**

7) **This assignment is valid from 1st January, 2026 to 31st December, 2026.** If you have failed in this assignment or fail to submit it till its validity, then you need to get the assignment for the next year and submit it as per the instructions given in the Programme Guide.

8) **You cannot fill the examination form for this course** until you have submitted this assignment.

We wish you good luck.

ASSIGNMENT
(Tutor Marked Assignment)

Course Code: MZOE-006
Assignment Code: MZOE-006/TMA/2026
Maximum Marks: 100

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

1. Differentiate between the following: 10 (10)
   a). Perennial and severe pests
   b). Occasional and migrant pests
   c). Economic threshold and economic injury level
   d). Damage caused by insects with biting mouthparts and that by insects with sucking type of mouthparts.

2. Write short notes on the following: (10)
   i). Gundhi Bug adult
   ii). Damage caused by *E. insulana*
   iii). Damage caused by Sugarcane Pyrilla
   iv). Management of Castor Semilooper

3. Enumerate few traditional storage structures and discuss their merits and demerits. (10)

4. Discuss different phases of locust. (10)

5. Explain different mechanisms of HPR (Host Plant Resistance). (10)

6. Explain physical and chemical methods of pest management. (10)

7. a). What are the merits and demerits of biological control? (5)
   b). Give a brief account on methods and equipment used for application of pesticides. (5)

8. a). How does SIT contribute to integrated pest management (IPM)? (5)
   b). How does the use of biotechnological methods in pest control contribute to Integrated Pest Management (IPM)? (5)

9. a). Describe the role of *Wolbachia*in controlling mosquito vectors by causing cytoplasmic compatibility. (5)
   b). Explain the harvesting and spinning of cocoon to form silk fibre. (5)

10. List the different steps involved in forensic investigations conducted with the help of insects. Explain each step briefly. (10)