

No. of Printed Pages : 4

MZOE-006

M. SC. (ZOOLOGY)

(MSCZOO)

Term-End Examination

June, 2026

MZOE-006 : APPLIED ENTOMOLOGY

Time : 2 Hours

Maximum Marks : 50

Note : Do any ***five*** questions. All questions carry equal marks.

1. (a) Explain the life cycle of any *one* major pest of cotton with suitable diagram. 5
- (b) Differentiate between the following pairs of terms : $2 \times 2\frac{1}{2} = 5$
 - (i) Economic Injury Level (EIL) and Economic Threshold (ET)
 - (ii) Monophagous and Polyphagous pests.

2. (a) List the key steps involved in the establishment of insect population on plants. 5
- (b) Explain the nature of damage caused by any *one* stored grain pest and its two methods of control. 5
3. Write short notes on any *two* of the following : 2×5=10
- (a) Damage caused by Gundhi bug (*Leptocorisa acuta*) and its control.
- (b) Role of *Wolbachia* bacteria in mosquito control.
- (c) Role of allelochemicals in insect plant interactions

4. (a) Explain the principle of biological control and give *two* examples of its successful use in agriculture. 5
- (b) Discuss the role of Sterile Insect Technique (SIT) in insect pest management. 5
5. (a) Discuss the role of pheromones and Insect Growth Regulators (IGRs) in pest management. 5
- (b) What is Integrated Vector Management (IVM) ? List its *five* elements as per WHO. 5
6. (a) What are the main products obtained from honey bees ? Mention any *two* management practices to keep colonies healthy ? 5

- (b) Briefly describe the life cycle of mulberry silkworm and list *two* major diseases affecting it. 5
7. (a) What is Lac ? Name *two* host plants of Lac insect and describe one step in Lac processing. 5
- (b) Explain the role of insects in forensic entomology and how they help in estimating postmortem interval. 5
8. Explain the reasons of insects as most successful organisms on earth with suitable examples. 10

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