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MZOE-006

M. SC. (ZOOLOGY)

(MSCZOO)

Term-End Examination

December, 2025

MZOE-006 : APPLIED ENTOMOLOGY

Time : 2 Hours

Maximum Marks : 50

Note : *Attempt any **five** questions. The marks for each question are indicated against it.*

1. Write short notes on any **two** of the following : 2×5=10
- (a) Concept of Integrated Pest Management (IPM)
 - (b) Structural perfections exhibited by insect-pests
 - (c) Developmental characteristics exhibited by the insect-pests

2. (a) Discuss the various stored grain insect-pest management strategies. 5
- (b) List the various functions of Locust Warning Organisation (LWO). Explain its role in international cooperation to manage the locusts in different countries. 5
3. Write in brief about the following : $4 \times 2.5 = 10$
- (a) Adult of Gundhi Bug (*Leptocorisa varicornis*)
- (b) Damage caused by *Earias insulana* on cotton
- (c) Damage caused by sugarcane *Pyrilla*
- (d) Management of Mango mealy bug
4. (a) How does the use of biotechnological methods in pest control contribute to pest management ? 5

- (b) What are Insect Growth Regulators (IGRs) ? How do they help in pest management ? 5
5. (a) Write the objective of Integrated Vector Management (IVM). Describe the *five* key elements that have been identified by WHO for the successful implementation of IVM. 5
- (b) Explain the life cycle of honey bees with the help of a suitable diagram. Describe the ways they communicate with each other to gather good quality of food for the colony. 5
6. Briefly describe the concept of entomotoxicology and the analysis processes involved. How do these analyses help in criminal investigations ? 10

7. (a) Differentiate between Chawki and Old-age rearing. Explain in terms of feeding and spacing of silkworms. 4
- (b) What is coupe system in artificial inoculation of brood lac ? Differentiate between Kusumi and Rangeeni Coupe. Name the crops for which they are practised during cultivation. 6
8. Discuss the merits and demerits of chemical control methods used against insect-pests.10

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