

**K-560**

Total Pages : 3

Roll No. ....

**ZO-554(A)**

**APPLIED ENTOMOLOGY**

M.Sc. Zoology (MSCZO)

2nd Year Examination, 2023 (Dec.)

**Time : 2 Hours]**

**Max. Marks : 70**

**Note :** This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

**SECTION–A**

**(Long Answer Type Questions)**

**Note :** Section 'A' contains Five (05) long answer type questions of Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

1. Which are the members of the Apterygota? Describe their important characters of with suitable examples.
2. Describe the various type of mouthparts found in insects.
3. Describe a generalized structure of alimentary canal in insects.
4. Describe various bollworms damaging cotton and suggested various practices that can be adopted to manage these pests.
5. Discuss in detail the status of black-headed caterpillar on coconut in India describing its biology and suggested the management practices.

## **SECTION-B**

### **(Short Answer Type Questions)**

**Note :** Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. Discuss the nature and symptoms of damage and the life cycle of fruit flies attacking cucurbits.
2. How do you differentiate insects predators and parasitoids.
3. Describe typical plant parasitic nematodes.

4. Discuss the volcanism in *B.mori*.
  5. How is the honeybee colony organized?
  6. Write in detail the life history of lac insect.
  7. Discuss the important characters of the order Hymenoptera and discuss the importance of this order.
  8. What modifications are found in the antennae of the insects.
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