Total Pages : 3

Roll No.

MSCZO-611

Entomology (Morphology, Physiology & Development Biology)

M.Sc. Zoology (MSCZO)

4th Semester 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.

 $(2 \times 19 = 38)$

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[P.T.O.

- 1. Which are the members of the Apterygota? Describe their important characters of with suitable examples.
- **2.** Discuss the important characters of the order coleoptera and discuss the importance of this order.
- 3. Desceribe the wing-coupling apparatus found in insects.
- 4. What modifications are found in the antennae of the insects?
- 5. Describe the sutures found on the head capsule of an insect.

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. Describe the biting and chewing type mouth parts of insects.
- 2. Describe the Sucking type mouth parts of insects.
- 3. What modifications are found in the legs of the insects?
- 4. What modifications are found in the wing of the insects?

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- 5. Short note :
 - (a) Labrum and labium.
 - (b) Maxillae and mandibles.
- 6. Write a short note :
 - (a) Early Embryonic Development of insect.
 - (b) Blastokinesis.
- 7. Write a short note on diapause.
- **8.** Describe the typical eyes of insects.

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