

Roll No. Total No. of Printed Pages : 4

B04-105

Fourth Semester Online Examination, May-June, 2022

M. Sc. ZOOLOGY

Paper I

INSECT BIOLOGY

Time : Three Hours] [Maximum Marks : 80

Note : (i) Part A and B of each question in each Unit consist of very short answer type questions which are to be answered in one or two sentences.

(ii) Part C (Short answer type) (Word limit 200-250) and Part D (Long answer type) of each question should be answered within the word limit (400-450 words) mentioned.

UNIT-I

1. (A) Type of mouth part in Butterfly. 2
- (B) Digestive glands of insects. 2
- (C) Write short note on Economic importance of Insect. 4

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Or

Write note on problem of Demethylation.

- (D) Define social organization in Insects. Explain it with suitable examples. 12

Or

Write an essay on Carbohydrate metabolism in Insects.

UNIT-II

2. (A) Endoparasitic respiration in insect. Define it with example. 2
- (B) Define Haemocyte. 2
- (C) Write the character's and composition of Haemolymph. 4

Or

Draw a well labelled diagram of nervous system of insect.

- (D) Write the mechanism of respiration in Aquatic Insects. 12

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Or

Explain physiology of circulation in insects.

UNIT-III

3. (A) Write the excretory organs of insect. 2
(B) Flight muscles of insect. 2
(C) Write a short note on salt-water regulation in insect. 4

Or

Draw a well-labelled diagram of ommatidium.

- (D) Write an essay on sonification and their importance. 12

Or

Write the physiology of muscles in insects and their importance.

UNIT-IV

4. (A) What is Pheromones. 2
(B) Write the name of the pest of sugar cane. 2

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- (C) Draw well labelled diagram of male Reproductive organ of Butterfly. 4

Or

Write a short note on Biological Pest Control.

- (D) Explain the process of Development in Grasshopper. 12

Or

Write an essay on pest management.

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