00072

The Open University of Sri Lanka
Faculty of Natural Sciences
B. Sc/ B. Ed Degree Programme

Department	: **Zoology**
Level	: **5**
Name of the Examination	: **Final Examination**
Course Code and Title	: **ZYU5306 – Entomology**
Academic Year	: **2023/2024**
Date	: **19th October, 2023**
Time	: **1.30 p.m. – 3.30 p.m.**
Duration	: **2 hours**

General Instructions

1. Read all instructions carefully before answering the questions.

2. This question paper consists of six (6) questions.

3. Answer any four (4) questions only.

4. Answer for each question should commence from a new page.

5. Draw fully labelled diagrams where necessary.

6. Clearly state your index number in your answer script

7. Having any unauthorized documents/ mobile phones in your possessionis a punishable offense

Answer <u>any four (4)</u> questions.

1. Outline the major types of Insect Development giving suitable examples (100 marks)

2. i. Food ingestion, digestion and absorption are performed by a specific system by an insect. Briefly explain the general organization of this specific system. (70 marks)

   ii. Briefly explain the generalized process of digestion of food in insects. (30 marks)

3. Briefly describe the mode of life and the relationship with humans in the three (3) insect categories given below.

   A. Bees as a social insect, **B**. Mantis as a predatory insect,
   C. Mosquito as an ectoparasitic insect. (100 marks)

4. i. Briefly describe the two major global threats to insect biodiversity (30 marks)

   ii. Outline the main methods of insect conservation, practiced globally and list the positive and negative aspects of each method (70 marks)

5. Briefly describe the following structures of insects
   a. Malpighian tubules **b.** The compound Eye **c.** Hemocytes (100 marks)

6. Write short notes on any three of the following?
   a) The insect antennae
   b) Photo- period (Photoperiodism)
   c) Insects in terrestrial and aquatic habitats
   d) Insect Pheromone.

   (100 marks)

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