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

Department	: Zoology
Name of the Examination	: Final Examination 2021/2022
Academic Year	: 2021/2022
Course Code and Title	: ZYU5306 - Entomology
Level	: 5
Date	: 26.10.2022

General Instructions to Candidates

1. Read all instructions carefully before answering the questions.
2. This question paper consists of **two (02) pages** and **Six (06) questions**.
3. Answer any **four (04) questions**.
4. The answer for each question should commence from a new page.
5. Use blue or black ink to write your answers.
6. Draw fully labelled diagrams where necessary.
7. Write the numbers of the questions you answered in the front page of the answer script.
8. Clearly write your index number in the answer script.
9. Do not bring in or have in possession unauthorized materials, including mobile phones and other electronic devices, or violate other examination rules.
10. Handover your answer script at the end of the examination.

1. 1.1. For each category of insect given below give one example each, and briefly describe the mode of life with respect to their habitats, main adaptations and feeding behaviour
a) Predatory insect b) Ectoparasitic insect c) Social insect d) Scavenging insect (70 marks)

1.2. Briefly comment on impacts of the insects described in 1.1 above, on humans? **(30 marks)**

2. 2.1. Describe the generalized structure of the respiratory system of insects? **(60 marks)**

2.2. Explain the main adaptive modifications in the respiratory systems of **aquatic** and **endoparasitic** insects? **(40 marks)**

3. 3.1. **Apart from oviparity**, list the other reproductive methods seen among insects. Describe each method you state above with insect examples? **(70 marks)**

3.2. Briefly explain diapause in insects stating its advantages and disadvantages **(30 marks)**

4. 4.1. List the life activities of insects where communication has a very important role **(10 marks)**

4.2. Summarize advantages and disadvantages of the tactile, visual and acoustic communication methods among insects **(50 marks)**

4.3 Discuss Pheromone signaling method in insects **(40 marks)**

5. Write a descriptive account on morphological and behavioural insect defense strategies **(100 marks)**

6. Write short notes on **any three** of the given below
6.1 Insect antennae
6.2 Insect eyes
6.3 Insect pollinators
6.4 Apterygote insects

(100 marks)