



The Open University of Sri Lanka
 Department of Zoology
 BSc Degree Programme – Level 5
 Course title – Insect Biology
 Course code – ZLU3186
 Final Examination – 2017 / 2018

Date – 1st October, 2018

Time – 9.30 am – 11.30 am

Answer any four (04) questions.

Wherever necessary illustrate your answers with clearly labeled diagrams

1. Giving examples discuss the different types of insect limbs and their modifications related to function. (100marks)
2. a) Name an insect parasitoid, and an ectoparasitic insect. Draw fully labelled diagrams of their adult female insect. (30 marks)
- b) Explain the differences between the modes of life of insect parasitoids and ectoparasitic insects. (40 marks)
- c) Comment on the importance of insect parasitoids and ectoparasitic insects to human life. (30 marks)
3. a) Draw fully labelled diagrams of the insect tracheolar system and explain the process of respiration in small insects. (60 marks)
- b) Describe adaptations for respiration found in the following two insect larvae. (40 marks)
 - (i) may fly larvae
 - (ii) mosquito larvae
4. a) Outline in a stepwise manner, the changes that occur in the insect integument during the moulting cycle of an insect. (50 marks)
- b) Draw a graph, that will explain the pattern of growth of insects. (20 marks)
- c) Why are post-embryonic changes that occur after the larval – pupal moult, important for an adult butterfly? Explain giving reasons. (30 marks)

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5. "Insects are the largest animal group in the Kingdom Animalia" Justify this statement explaining **eight (8)** different reasons. (100marks)
6. Write short notes on any **three (3)** of the following;
- a) Termites.
 - b) Insect mouthparts.
 - c) Malpighian tubules.
 - d) Threats to insect biodiversity.
- (100marks)
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