



FIJI NATIONAL UNIVERSITY
College of Agriculture, Fisheries & Forestry
School of Agricultural Sciences & Forestry
Department of Entomology and Plant Pathology
Bachelor of Science in Agriculture– Year II

Final Examination
Semester 1 - 2019

ENT 621- General Entomology

Writing Time: 3:00 hours

Reading Time: extra 10 minutes allowed at the beginning of the exam

Total Marks: 100

INSTRUCTIONS:

1. This paper consists of **THREE** pages.
2. Please check to see that all your paper is complete.
3. Answer all questions in the Answer Booklet only.
4. No written or printed material and mobile phones are allowed in the examination hall.
5. Marks allocated for each section appears at the side of each question so allocate your time accordingly.
6. This paper is divided into **THREE** Sections

Section A: Fill in the blanks and multiple choice Questions

(20 Marks)

Section B: Short answer

(30 Marks)

Section C: Essay

(50 Marks)

Section A. OBJECTIVE TYPE QUESTIONS**Note: Answer only on the Answer Sheet****Total Marks: 20****Section A1. Fill in the blanks.****(10x1=10 Marks)**

1. Estimated number of species on the land are -----.
2. The process of molting in insect is called -----.
3. ----- implies differential growth so that some parts of the body grow more than others resulting in a change of form.
4. House fly takes ----- days from egg hatch to pupation at ----- degree Celsius.
5. Estimated number of species in ocean are -----.
6. The period of development within the egg is known as ----- development.
7. The body of insects consists of layer of walls called-----.
8. ----- are found in the larvae of Holometabolous insects.
9. ----- wing is small in size and insect cannot fly.
10. The insect egg is fertilized as it passes down the ----- at the time of oviposition.

Section A2. Multiple choice questions: Select the correct answer.**(10x1=10 Marks)**

1. Estimated number of species on earth are-----.
A. 8.6 million B. 7.7 million
C. 8.8 million D. 8.7 million
2. The weight increase from egg to mature larva in case of blowfly is----- times.
A. 450 B. 350
C. 360 D. 460
3. The weight increase from egg to mature larva in case of honey bee is----- times.
A. 1200 B. 1600
C. 1000 D. 1500
4. About----- species are found under phylum Arthropoda in all habitat.
A. 8,00,000 B. 9,00,000
C. 6,00,000 D. 7,00,000
5. Feeding and locomotion do not take place in-----.
A. Larval stage B. Pupal stage
C. Egg stage D. Adult stage

6. The spiracles are found on-----
 - A. Head
 - B. Mesothorax
 - C. Metathorax
 - D. abdomen
7. The muscoid type of larva is found in-----,
 - A. Housefly
 - B. whitefly
 - C. bowfly
 - D. Dragonfly
8. A pair of mandible located behind-----,
 - A. Labrum
 - B. Labium
 - C. Maxillae
 - D. Hypopharynx
9. The housefly larvae regularly pass through----- instars.
 - A. five
 - B. Four
 - C. Three
 - D. Six
10. Above each side of ----- antennae is located.
 - A. Frons
 - B. Clypeus
 - C. Ommatidia
 - D. Gena

Section B. Short Answers.**Total Marks: 30**

1. Sketch out the insect leg and label it. (5)
2. List the classes under phylum Arthropoda and discuss any three of them. (5)
3. List the orders of agricultural importance under phylum Arthropoda and discuss any three of them. (5)
4. Sketch out the segments of mouth part of insect and label it. (5)
5. Discuss the characters of phylum Arthropod. (5)
6. Differentiate between insect and mite. (5)

Section C. Essay questions**(50 Marks)****Note: Attempt Any FIVE Questions Only. All carries equal TEN marks.**

- 1 Discuss factors affecting growth in insects. (10)
- 2 Discuss any two types of metamorphosis in detail. (10)
- 3 Discuss types of mouth parts in detail. (10)
- 4 Discuss the Head, Thorax and Abdomen of insect in detail. (10)
- 5 List the types of legs and discuss any four in detail. (10)
- 6 Discuss pupae and types of pupae in insects. (10)
- 7 Discuss larvae and any two types of types of larvae in detail. (10)

THE END

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