

Bago University
Department of Zoology
Second Semester Examination, September 2019

Third Year (B.Sc)
(Zoology Specialization)
Answer ALL questions

Zool. 3113
Entomology
Time Allowed: (3) Hours

I. State TRUE or FALSE to the following statements.

(10 marks)

1. The insect body is protected by a hard external "shell" or integument.
2. Insects of the family Coccinellidae are sometimes called ladybirds or ladybugs.
3. Carnivores that eat other carnivores (tertiary consumers) are at level 3.
4. The field of ecological genetics is the study of genetics in natural populations.
5. The bulk of agricultural entomology deals with the control of insect pests.
6. A good colony of Indian bees has 40 to 50 thousands individuals consisting of two castes.
7. The worker bees secrete wax from glands situated in the abdomen.
8. All ants are social insects, living together in colonies.
9. Insect attack man and his domestic animals by causing diseases.
10. The silk thread from a cocoon of *Bombyx mori* can be as long as 1,00m.

II. Complete the following statements with appropriate words.

(10 marks)

1. Insect in this order, especially those of the suborder ----- are known as true bugs.
2. Insect taxonomy deals with -----, describing, and naming species and groups of species.
3. Molecular genetics may include insect ----- and gene structure.
4. Insect are also essential in maintaining ----- forests.
5. The shedding of ----- exoskeleton is a complex process called moulting.
6. *Gryllus* is the common ----- cricket.
7. Butterflies are ----- or day flies and suck the nectar from the flowers.
8. Honey bees are mostly ----- feeders of flower.
9. The queen, like the worker, is produced from ----- eggs.
10. All ants are social insects, living together in -----.

III. Answer ALL questions

(10 marks)

1. Discuss about the copulation of locust.
2. Describe the systematic position of Housefly.
3. Give a short note on drone of *Apis*.
4. Describe the disease transmitting of injurious insects.
5. State the insect colour pigments.

IV. Answer ALL questions

(20 marks)

1. Explain the morphological differences between the Insecta and the closely related Entognatha.
2. Give a short note on nervous and reproductive System in Class Insecta.
3. Describe the habit and habitat of grasshopper.
4. Explain about the habit ant habitat of genus *Musca*.

V. Answer ANY THREE questions

(30 marks)

1. Explain about the medical and veterinary entomology.
2. Enumerate the general characteristics of Class- Insecta.
3. State briefly on the Sting bugs.
4. Discuss as far as you can the habit and habitat of endopterygota insect beetles.
5. Explain about the beneficial insects and its commercial products.
6. Describe the lesions due to mechanical trauma by a blood-sucking arthropod affect the health of man.
