

**FIJI NATIONAL UNIVERSITY**

College of Agriculture, Fisheries & Forestry

School of Agricultural Sciences

B. Sc. (Forestry) Second Year Second Trimester– 2017**ENT 604 : Forest Entomology****Time Allowed: 3.00 hours plus (10 minutes reading time) Total Marks: 50****INSTRUCTIONS:**

1. This paper consists of **six** pages including **two** pages Answer Sheet.
2. Please check to see that all your answer script is complete.
3. Answer all the Objective Type Questions on the Answer Sheet and Descriptive Type 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 question appears at the side of each question so allocate your time accordingly.
6. This paper is divided into Two parts. First part contains Objective Type Questions which has four Sections – A, B, and C. All questions in this part are compulsory. Second part is Descriptive Type which has **six (6)** questions. Attempt only any **five (5)** questions from this part.

I. OBJECTIVE TYPE QUESTIONS (20 Marks)**To be answered only on the Answer Sheet.**

Section A: Fill in the blanks. (10 Marks)

Section B: Multiple choice Questions. (5 Marks)

Section D: Write True or False. (5 Marks)

II. DESCRIPTIVE TYPE QUESTIONS (30 marks)

There are **six (6)** descriptive type questions provided, please **attempt any five (5) questions only** and write on the Answer Booklet. Answer every question from a new page to facilitate evaluation.

Student I D No.:

Date.....

I. OBJECTIVE TYPE QUESTIONS

Time: 45 Minutes

Total Marks: 20

A. Fill in the blanks.

(10x1=10 Marks)

B. Fill in the blanks.

(10x0.5=5 Marks)

1. Estimated number of species on land are-----.
2. The number of classes in phylum Arthropoda.....
3. Number of insect species described are.....
4. The middle valve in female is used for-----.
5. Above each ----- one compound eye is located.
6. Millipedes generally feeds on ----- matter.
7. The change of bodily form from egg to adult is called-----
8. Four stages of development are found in----- type of metamorphosis.
9. The insect----- produce silk.
10. Mites belongs to class-----

C. Multiple choice questions: Select the correct answer. (10x0.5=5 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-----times.

A.	450	B.	550
C.	350	D.	460

3. The insect egg is-----

A.	Monoblastic	B.	Deoblastic
C.	Troploblastic	D.	None of above

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. The thorax is comprise of----- segments

A.	3	B.	6
C.	11	D.	13

6. The insect body have ----- segments

A.	20	B.	30
C.	25	D.	22

7. In cockroaches ----- instars are present

A.	5-6	B.	4-5
C.	6-8	D.	7-9

8. The head is composed of ----- segments

A.	4	B.	6
C.	5	D.	8

9. The weight increase from egg to mature larva in case of goat moth-----times

A.	62,000	B.	72,000
C.	82,000	D.	74,000

10. over ----- species of insects are used as food by human.

A.	700	B.	600
C.	800	D.	500

c. Write 'True' or 'False'.

(10x0.5=5Marks)

1.	The period of development within the egg is known as post embryonic	
2.	The highest number of instars i.e., 40-50 is found in May flies	
3.	The moulting hormone is known as ecdysone	
4.	Wings are found on thorax of insect	
5.	Ocelli is having single lens	
6.	Timber is damaged by termite.	
7.	Thorax is composed of 6 segments	
8.	Class Insecta is also known as Hexapoda	
9.	The dorsal side of insect body refers to lower surface	
10	Pro-thorax does not have wings	

II. Descriptive type Questions

(30Marks)

Note: Attempt Any FIVE Questions Only. All carries equal SIX marks.

1	Define Insect and Pest. Discuss the advantages and disadvantages of insect.	(6)
2	Discuss the characters of phylum Arthropoda and Classes of phylum Arthropoda. Give the difference between insect and mite.	(10)
3	Discuss the Head, Thorax and Abdomen of insect in detail.	(10)
4	Define metamorphosis in insect. Discuss the types of metamorphosis in detail.	(10)
5	Discuss insect growth in detail.	(10)
6	Classify the forest pest. Describe the factors of outbreaks of pests.	(10)

The End

Date:

Marks obtained:

Name:

Student ID No.:

B. Sc. (Forestry) Second Year Second Trimester– 2017

ENT 604 : Forest Entomology

I. Objective Type Questions - Answer Sheet

Time: 45 Minutes

Total Marks: 20

A.	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		
B.	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		

C.	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		

XXXXXXXXXXXXX