

**FIJI NATIONAL UNIVERSITY****College of Agriculture, Fisheries & Forestry****School of Agricultural Sciences****Trade Diploma (Agroforestry) Second Year Second Trimester– 2017**  
**ENT 406: Pests of Agroforest and Their Management****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 C: 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.

**I. OBJECTIVE TYPE QUESTIONS****Time: 45 Minutes****Total Marks: 20****A. Fill in the blanks.****(10x1=10 Marks)****A. Fill in the blanks.****(10x1= 10 Marks)**

1. The scientific name of Rhinoceros beetle is-----.
2. The coconut eriophyid mite belongs to order-----
3. The scientific name of jackfruit leaf webber is-----
4. The scientific name of black headed caterpillar is-----
5. The pollu belongs to order.....
6. Jackfruit leaf webber is a ----- pest.
7. The scientific name of top shoot borer is-----
8. The top shoot borer belongs to order -----
9. The relationship between fuel, oxygen and heat can be called as-----
10. The scientific name of banana scale moth is-----

**B. Multiple choice questions: Select the correct answer.****(10x0.5=5 Marks)**

1. Oxygen gas makes up about----- of the surface atmosphere

A.	20 percent	B.	40 percent
C.	30 percent	D.	50 percent

2. The Rhinoceros beetle belongs to order

A.	Lepidoptera	B.	Thysanoptera
C.	Diptera	D.	Colcoptera

3. The red palm beetle belongs to order-----
- |    |             |    |              |
|----|-------------|----|--------------|
| A. | Lepidoptera | B. | Thysanoptera |
| C. | Coleoptera  | D. | Diptera      |
4. Rhinoceros beetle belongs to family-----
- |    |            |    |              |
|----|------------|----|--------------|
| A. | Noctuidae  | B. | Scarabaeidae |
| C. | Thriptidae | D. | Pentatomidae |
5. The female of Rhinoceros beetle lays about-----
- |    |          |    |          |
|----|----------|----|----------|
| A. | 160 eggs | B. | 140 eggs |
| C. | 150 eggs | D. | 130gs    |
6. The female of red palm weevil lays about .....
- |    |          |    |          |
|----|----------|----|----------|
| A. | 276 eggs | B. | 376 eggs |
| C. | 176 eggs | D. | 196gs    |
7. Coconut mite have ..... type mouth part
- |    |                      |    |           |
|----|----------------------|----|-----------|
| A. | Biting and chewing   | B. | Sponging  |
| C. | Piercing and sucking | D. | Siphoning |
8. The female of white grub lays eggs in soil up to a depth of-----
- |    |         |    |         |
|----|---------|----|---------|
| A. | 9-17 cm | B. | 7-15 cm |
| C. | 8-11 cm | D. | 6-12 m  |
9. The female of slug caterpillar lays eggs in batches of-----
- |    |       |    |       |
|----|-------|----|-------|
| A. | 20-40 | B. | 30-50 |
| C. | 10-20 | D. | 40-60 |
10. The marginal gall thrips belongs to order.....
- |    |              |    |           |
|----|--------------|----|-----------|
| A. | Lepidoptera  | B. | Coloptera |
| C. | Thysanoptera | D. | Isoptera  |

C. Write 'True' or 'False'.

(5x0.5=5Marks)

1.	Drought is a major forest health problem	
2.	Smoking is a great cause of forest fire	
3.	Neutrient imbalance is major forest health problem	
4.	The pollu beetle is a serious pest of pepper at lower altitude	
5.	The top shoot borer belongs to order Lepidoptera	
6.	The railroad locomotive is a great cause of forest fire	
7.	For a forest fire to occur three things are required fuel, oxygen and heat	
8.	Causes for forest fire are man made and natural.	
9.	The female of slug caterpillar lays on underside of the leaves	
10	Burning of trash (garbage) causes fire in forest	

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## II. Descriptive type Questions

(30 Marks)

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

1	Discuss fire as a physiological process	(6)
2	List the pests of coconut and discuss one pest in detail	(6)
3	Lists the pests of Arecanut and discuss one pest in detail.	(6)
4	List the insects of Black Pepper and discuss one insect in detail.	(6)
5	What are the types of pest control. Discuss in detail.	(6)
6	List one pest of Jackfruit, banana and pine apple. Discuss any one in detail.	(6)

The End

Date: .....

Marks obtained: .....

Name: .....

Student I D No.: .....

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**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.		

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

XXXXXXXXXXXX