

**FIJI NATIONAL UNIVERSITY****College of Agriculture, Fisheries & Forestry****School of Agricultural Sciences****Trade Diploma in Agriculture, Trimester III Final Examination - 2016****ENT 402: Agricultural Biology****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 paper is complete.
3. Answer all the Objective Type Questions on the Answer Sheet and Descriptive Type Questions in the Answer Booklet only.
4. The Answer sheet of the objective Type Questions will be collected **45 Minutes** after the start of Examination.
5. **No** written or printed material and mobile phones are allowed in the examination hall
6. Marks allocated for each question appears at the side of each question so allocate your time accordingly.
7. This paper is divided into Two parts. First part contains Objective Type Questions which is having four Sections – A, B, C, and D. All questions of this part are compulsory. Second part is Descriptive Type which is having **seven (7)** questions. Attempt only any **five** questions from this part.

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

Section A: Fill in the blanks. (5 Marks)

Section B: Multiple choice Questions. (5 Marks)

Section C: Matching type. (5 Marks)

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

**II. DESCRIPTIVE TYPE QUESTIONS (30 marks)**

There are **seven (7)** 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 ID No.: .....

Date.....

## I. OBJECTIVE TYPE QUESTIONS

**Note: Answer only on the Answer Sheet and return 45 minutes after the start of Examination.**

**Time: 45 Minutes**

**Total Marks: 20**

**A. Fill in the blanks.**

**(10x0.5=5 Marks)**

01. Honeybee belongs to class .....
02. Mycology deals with.....
03. Acarine disease is caused by----- mite.
04. .... is the inventor of compound microscope
05. The number of workers in a honeybee colony may be-----.
06. *Apis mellifera* belongs to family-----.
07. .... is known as Father of Modern Taxonomy.
08. The number of generation in silkworm is called.....
09. Uzi fly is a ----- on silkworm.
10. Carolus Linnaeus wrote the book.....

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

11. Kinds of honey bee found globally.

A.	20,000	B.	Less than 20,000
C.	More than 20,000	D.	None of above

12. Silk worm produce by stage of silk moth

A.	Pupal stage	B.	Larval stage
C.	Adult stage	D.	None

13. The most common elements found in living organisms are

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

14. The DDT was banned in the year

A.	1969	B.	1970
C.	1960	D.	1950

15. The loss of energy is known as

A.	Enthalpy	B.	Photophobic
C.	Phototropic	D.	Entropy

16. Hand picking is done in method of IPM

A.	Mechanical	B.	Chemical
C.	Cultural	D.	Biological

17. The postal stamps on honey production were issued on

A.	12 October, 2006	B.	16 October, 2006
C.	26 October, 2006	D.	18 October, 2006

18. Eggs of *Bombyx mori* hatched in

A.	5-9 days	B.	16-18 days
C.	10-14 days	D.	4-8 days

19. Arthropods species found in different habitats

A.	10,00,000	B.	8,00,000
C.	9,00,000	D.	12,00,000

20. *Bombyx mori* belongs to order

A.	Hymenoptera	B.	Lepidoptera
C.	Hemiptera	D.	None

C. Match the following:

(10x0.5=5 Marks)

21.	Botany deals with	A.	6 weeks
22.	Propolis is a substance	B.	plants
23.	Workers are having stings	C.	3 weeks
24.	Apterygota means	D.	Winged insects
25.	The queens are having sting	E.	Sword shaped
26.	Bee having good honey gathering quality	F.	<i>Apis mellifera</i>
27.	The workers have life span	G.	Wingless insects
28.	Pterygota means	H.	2-3 years
29.	The drones have life span	I.	Barbed
30.	Queens have life span of	J.	resinous

**D. Write 'True' or 'False'.****(10x0.5=5 Marks)**

31.	Female honey bee can lay about 12000 eggs per day	
32.	Total 16 elements are essential for living organisms	
33.	The extraction of honey should be done in day time	
34.	Chlorophyll is not essential for survival of plants	
35.	Energy occupies space and possesses mass	
36.	Propolis is collected from bee hive.	
37.	The round dance of bees indicates distance of more than 50 m	
38.	Beetles eats the cocoons of silkworm	
39.	The drones are stingless	
40.	The life span honey bee is 2-3 years	

**II. Descriptive type Questions****(30 Marks)****Note: Attempt Any FIVE Questions Only. All carries equal SIX (6) marks.**

1.	Discuss the life cycle with sketch of different stages of <i>Bombyx mori</i>	(6)
2.	Discuss the nature of damage, life cycle, damage symptoms and management of Sugarcane mite	(6)
3.	Discuss the beehive instruments in detail.	(6)
4.	Define Pest Outbreaks. Illustrate causes of pest outbreaks	(6)
5.	Define IPM. Describe brief history and tools of IPM.	(6)
6.	Discuss nature of damage, life cycle, damage symptoms and management of Diamond Back Moth on Cabbage	(6)
7.	Define any three of the following (1). Pest (2). Economic damage (3). Pest complex (4). Economic Injury Level (5). Economic threshold	(6)

**The End****XXXXXXXXXXXX**

Date: .....

Marks obtained: .....

Name: .....

Student ID No.: .....

**Trade Diploma in Agriculture, Trimester III**  
**Course No. & Title: ENT 402: Agricultural Biology**  
**I. Objective Type Questions - Answer Sheet**

**Time: 45 Minutes**

**Total Marks: 20**

A.	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		
B.	11.		
	12.		
	13.		
	14.		
	15.		
	16.		
	17.		
	18.		
	19.		

	20.		
--	-----	--	--

C.	21.		
	22.		
	23.		
	24.		
	25.		
	26.		
	27.		
	28.		
	29.		
	30.		
D.	31.		
	32.		
	33.		
	34.		
	35.		
	36.		
	37.		
	38.		
	39.		
	40.		

XXXXXXXXXXXXXX

---

---

	20.		
--	-----	--	--

C.	21.		
	22.		
	23.		
	24.		
	25.		
	26.		
	27.		
	28.		
	29.		
	30.		
D.	31.		
	32.		
	33.		
	34.		
	35.		
	36.		
	37.		
	38.		
	39.		
	40.		

XXXXXXXXXXXXX