

**FIJI NATIONAL UNIVERSITY****College of Agriculture, Fisheries & Forestry****School of Agricultural Sciences****Trade Diploma in Animal Husbandry, Trimester III Final Examination - 2016****ENT 415: Apiculture****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 I D 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 order
02. Queens are transported incage.
03. Acarine disease is caused by----- mite.
04. Nosema disease mostly attacks in----- season.
05. The number of workers in a honeybee colony may be-----.
06. *Apis mellifera* belongs to family-----.
07. European foul disease is caused by-----.
08. The dark coloured honey has----- flavour.
09. The mite enters in to bee through-----
10. In a beehive ventilation is made in----- cover.

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

11. The temperature in side beehive is found.

A.	25 ⁰ C	B.	30 ⁰ C
C.	40 ⁰ C	D.	35 ⁰ C

12. The nectar is composed of

A.	20-40% Sucrose	B.	10-20% Sucrose
C.	22-30% Sucrose	D.	30-40% Sucrose

13. Nosema disease is caused by

A.	Bacteria	B.	Virus
C.	Protozoa	D.	Fungi

14. The hive frame is made up of

A.	Steel	B.	Wood
C.	Aluminium	D.	Iron

15. The size of four legs of stand of beehive is

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

16. The ripened honey consists

A.	30% Dextrose	B.	40% Dextrose
C.	32% Dextrose	D.	35% Dextrose

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 honeybee hatched in

A.	05 days	B.	06 days
C.	03 days	D.	04 days

19. Scraper is used for scraping

A.	Propolis	B.	Honey
C.	Bee wax	D.	Worker bee

20. Radial extractor is used by

A.	Small beekeepers	B.	Commercial beekeepers
C.	House beekeepers	D.	None of them

C. Match the following:

(10x0.5=5 Marks)

21.	Chalk brood disease caused by	A.	6 weeks
22.	Propolis is a substance	B.	Virus
23.	Workers are having stings	C.	3 weeks
24.	Stone brood disease caused by	D.	<i>Aspergillus flavus</i>
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.	<i>Bacillus larvae</i>
28.	American foul disease is caused by	H.	<i>Pericystis apis</i>

29.	The drones have life span	I.	Barbed
30.	Sac brood disease is caused by	J.	resinous

D. Write 'True' or 'False'.

(10x0.5=5 Marks)

31.	Female honey bee can lay about 12000 eggs per day	
32.	Hive tool is made up of steel	
33.	The extraction of honey should be done in day time	
34.	Drones are without stings	
35.	The real bee product is propolis	
36.	Propolis is collected from bee hive.	
37.	The round dance of bees indicates distance of less than 50 m	
38.	Nosema disease is caused by virus	
39.	The dark coloured honey has stronger flavour	
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 organization of bee colony along with morphological features of three casts of honeybee	(6)
2.	Discuss the life history of honeybee along with periods of developments of different casts	(6)
3.	Discuss the beehive instruments in detail.	(6)
4.	Discuss the construction of a beehive along with different materials used.	(6)
5.	Discuss the extraction of honey from beehive in detail.	(6)
6.	Discuss the diseases and pests of honeybee in detail.	(6)
7.	Discuss about honey, its component, colour, flavour and use.	(6)

The End

XXXXXXXXXXXX

Date:

Marks obtained:

Name:

Student I D No.:

Trade Diploma in Animal Husbandry, Trimester III

Course No. & Title: ENT 415: Applied Apiculture

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.		

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