Student I D No..... Date: .....

FIJI NATIONAL UNIVERSITY

College of Agriculture, Fisheries & Forestry
School of Veterinary Science, Animal Husbandry & Fisheries
Department of Animal Husbandry
Trade Diploma in Animal Husbandry -Year 2
Trimester I - Final Examination – 2018

[AHB 501] –Dairy Cattle Production

Time Allowed: 3.00 hours plus (10 minutes reading time) **Total Marks: 100**

INSTRUCTIONS:

1. This paper consists of eight (8) pages.
2. Please check to see that all your paper is complete.
3. All answers should be written in the Answer Booklet only.
4. Marks allocated for each question appears at the side of each question.
5. This paper is divided into Two Parts. First Part contains Objective Type Questions.
6. Second part is Descriptive Type which is divided into three sections.

I. OBJECTIVE TYPE QUESTIONS (50 Marks)

To be answered only on the Answer Sheet.

Section A: Multiple Choices. (10 Marks)

Section B: Matching type. (15 Marks)

Section C: Write True or False. (10 Marks)

Section D: Fill in the blanks. (15 Marks)

II. DESCRIPTIVE TYPE QUESTIONS (50 marks)

There are **ten (10)** 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.

PART I. OBJECTIVE TYPE QUESTIONS

Total Marks: 50

A. Multiple Choices: (10X1=10 Marks)

Question 1

Bull infertility is a major cause of production loss in many dairy breeding herds. It can result from.

A Excessive semen production
B Inability to successfully mount cows
C Serious genital disorders
D High libido (sex drive)

Question 2

Condition scoring is an assessment of a cows.

A Ability to mount other cows on heat
B Body fatness
C Calving ability
D Milking ability

Question 3

Colostrum should be suckled or given to the calf.

A after the first 3 days of calving
B straight after calving
C after the first day
D straight after calving until the fourth day

Question 4

Milk let – down occurs.

A after milk has been successfully removed from the udder
B before the milk can be effectively removed from the udder
C when the milk has been completely stripped
D when milking is in progress

Question 5

The commercial production of sterilized milk in Fiji the Fiji Dairy industry started in.

A 1972
B 1959
C 1967
D 1930

Question 6

The Fiji Co-operative Dairy Company Limited (FCDCL) was established in.

A 1970 when Fiji gained independence
B 1987 after the first military coup'etat
C 2006 after another military coup'etat
D 2010 under the dairy restructure decree

Question 7

Dairy bulls are evaluated for their ability to transmit the characteristics of high milk production by considering the production level of their ancestors and by.

A the quality of their progeny produced
B the quality of the sperm produced
C the ability to mount cows on heat
D considering the production level of their daughters or offspring

Question 8

The presence of large number of bacteria forming (lactic acid) in the milk is an indication of.

A pregnancy in the cow
B poor nutrition in the cow
C mastitis
D brucellosis

Question 9

Time period between the birth of two calves by the same mother is the.

A freshening period
B weaning period
C calving interval
D lactation period

Question 10

Mastitis is an infectious disease mainly caused by.

A staphylococcus
B infection of the intra-mammary systems
C climate change
D the presence of water in the milk

B. Match the following: (15x1=15 Marks)

Match the following items on the left column to the correct answer on the right hand side column

Definitions	Terms	Ans
1. Affects females during pregnancy	a. Flat flavour	
2. Period of time that milk is secreted by the mammary glands.	b. Chlorine and iodine	
3. Mal presentation of calves	c. Low somatic cell count	
4. Feed given is controlled or limited to a certain amount	d. Alveoli	
5. Gives milk its slightly sweet taste	e. Colostrum	
6. Caused by the addition of water	f. Restricted feeding	
7. Nerve impulse	g. Dystocia	
8. Sanitizing agents	h. Prolapse	
9. Causes teat swelling and infection	I. Lactose	
10. Manufactures milk	j. Oxytocin	
11. Immunoglobulin	k. Udder	
12. Medial suspensory ligament	l. Sphincter muscle	
13. High quality milk	m. Milk let-down	
14. Control milk flow	n. Lactation	
15. Neuro-hormonal reflex	o. Mastitis	

C. Write 'True' or 'False'. (10x1=10 Marks)

1.	The presence of fat in milk gives the milk a slightly yellowish colour.
2.	Alcohol test indicates the stability of milk.
3.	Breeding bulls should have good set of feet and legs and a well-placed udder.
4.	Cooling the milk prevents the growth of most types of bacteria to a considerable degree.
5.	Mating is more successful if carried out around the second half of heat ie. about 6 hours after heat detection.
6.	The amount of milk a cow can produce is directly related to its age.
7.	This ligament is the most important characteristic of the udder.
8.	Dairy cows of ***Bos taurus*** type, the length of daylight grazing is confined almost entirely to mid-day and mid - afternoon periods
9.	Nerve impulse from the brain stimulates the thyroid gland to release oxytocin
10.	A feed plan or budget is a balance sheet in which available feed is compared with feed required.

D. Fill in the blanks. (15x1=15 Marks)

1. A good bull is that which produces the _____ desired.
2. Animal nutrition is very important because it influences _____.
3. Bacteria consist of only one _____.
4. Undernourished bulls have less _____ which results in low _____ production and inability to mount.
5. Overfeeding on the other hand will yield a bull that is too heavy and unable to _____.
6. _____ method of production means raising animals completely indoors.
7. Calving in pregnant cows is easily recognized by enlargement of _____ and the swelling and relaxation of the flesh around the _____ (aka as "springer's").
8. _____ the simplest system where animals roam freely finding their feed and are considered having no production cost.
9. "Mastitis is inflammation of the _____".
10. The quality of milk is largely determined by the number and types of _____ present in the milk.
11. When a cow is healthy, particularly as far as her _____ is concerned, she produces milk of good quality.
12. If the milk is left standing for some time (12 - 24 hours) without being _____, the fat particles move towards the _____.

Section B. Descriptive type Questions (50 Marks)

I. Short answer questions: Attempt to answer <u>five (5)</u> out of seven questions only. (3 marks each) 3 x 2.5 = 7.5

1. Discuss milk let-down in dairy cows.
2. Outline recommended milking procedures for the dairy herd.
3. Discuss the characteristics of high quality milk.
4. Discuss the composition of milk.
5. What other factors affect milk composition.
6. Discuss factors affecting milk quality.

II. **(Define/differentiate/enlist/enumerate/diagram/labelling/explain/ Attempt to answer five (5) out of eight questions only).**
(3marks each) 3 X 2.5 = 7.5

1. Zoonosis
2. Lactation
3. Brucellosis
4. Gestation
5. Grazing system
6. Regurgitate
7. Cud chewing
8. Estrous period

III. Long questions: **(7 marks each) 5 x 7 = 35**

Attempt to any five (5) out of eight (8) questions only.

1.	List and describe some of the important points to consider when planning your paddock layout.	(10)
2.	List and describe the signs indicating a cow's health.	(10)
3.	Explain why mastitis is an important economic disease by clearly describing the different forms and their impact.	(10)
4.	Explain why livestock officers treating brucellosis cases should be careful.	(10)
5.	Discuss the importance of good calf rearing.	(10)
6.	Discuss the relationship between feeding and reproduction in heifers.	(10)
7.	Discuss what is colostrum and its importance	(10)
8.	Explain why the selection of a dairy bull is more important than that of a dairy cow.	(10)

The End

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