Uva Wellassa University of Sri Lanka
Faculty of Animal Science & Export Agriculture

BASc Degree Program
Year II Semester I
End Semester Examination –March/April 2013

ANS 221-4 Ruminant Management and Breeding

Essay Questions (Section II)

Instructions:

Answer all questions in Section II in booklets provided.
No. of questions : Three (03)
No. of pages : Two (02)
Time : One and half hour (1 ½ hr)
Total marks allocated : 60%

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1. Long calving interval is a common problem in dairy farms of Badulla. Write an essay indicating the guidelines you use to **instruct** the farmers on the **importance** and **proper reproductive management practices** to **obtain one calf per year.**

(100 marks)

2. Write a brief account on the **problems associated with buffalo farming in Sri Lanka.**

(100 marks)

3. A farmer has a buffalo cow weighing 400 kg which is in the second lactation. During the first lactation, the cow had produced 4 liters of milk/day with 7 % fat. The farmer has 40 kg Guinea grass, 1 kg of Glyricidia, 1 kg of coconut poonac and adequate amount of rice straw to fulfill the daily nutrition requirement. (100 marks)

I. Calculate the **daily feed intake** by the animal.

II. Calculate the **daily TDN and DCP requirements of the cow** in grams. (Clearly indicate the assumptions you made during your calculation).

Table 1: Daily nutrient requirements (g TDN & g DCP) for a growing, lactating buffalo cow weighing 350 kg (maintenance, growth, milk production & gestation)

(l/day)	4% fat		6% fat		8% fat	
	TDN	DCP	TDN	DCP	TDN	DCP
3	5390	685	5660	730	5960	780
4	5730	745	6090	805	6490	870
5	6070	805	6520	880	7020	960
6	6410	865	6950	955	7550	1050
7	6750	925	7380	1030	8080	1140

Adjustments for body weight: for every 50 kg difference, add or subtract 300 g TDN and 25 g DCP

Adjustment for milk fat content: For every 1% increase in fat, provide an additional 50 g TDN and 8 g DCP for every liter of milk produced.

III. If the nutritive value and the dry matter content of the feeds are as given in the Table 2, **prepare a suitable ration to feed the buffalo cow.**

Table 2: Nutritive value of feeds (g/kg of fresh weight)

Feed stuff		DM	TDN	DCP
Guinea	Before flowering	210	116	19
	After flowering	301	105	09
Glyricidia		226	142	50
Rice straw		900	300	0
Coconut poonac		923	683	148

[End of Section II]