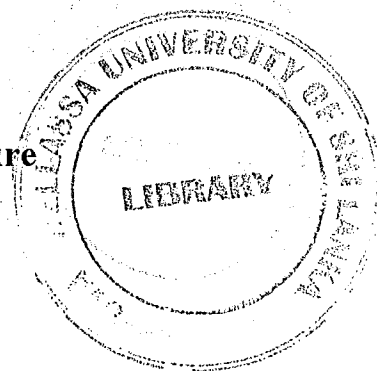




Faculty of Animal Science & Export Agriculture
Uva Wellassa University of Sri Lanka



B.ASc. Degree Programme
Year II Semester II
End Semester Examination - June 2008

ANS 2204-3 Selection and Animal Breeding Techniques - 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 hour and thirty minutes (01 hr. 30 min)

Total marks allocated : 60%

Index No:

1.

- a) Briefly explain why a farmer should focus on breeding methods in order to improve economic traits of farm animals

(50 marks)

- b) Milk production records of five (05) cows are given below

Cow	Milk yield (l/year)
1001	4,000
1002	3,600
1003	2,900
1004	3,200
1005	4,300

- i) Calculate the Breeding value (BV) by assuming that the h^2 for milk yield is 0.3 and herd average is 3600

(50 marks)

2. Write short notes on,

- a) Independent culling levels
- b) Traditional breed structure
- c) New reproductive technologies in Animal breeding

(100 marks)

3.

Coat colour of Labrador depends upon the action of a major gene "D". Black colour is dominant over yellow (golden colour).

Possible genotypes DD Dd dd

A breeder requires a progeny of golden colour puppies and he select only yellow/golden colour parents. If the initial gene frequencies are, $f(A) p = 0.5$ and $f(a) q = 0.5$

- a) Estimate the selection coefficient (S)
- b) Calculate the gene frequency after selection (p' and q')
- c) Calculate the change in gene frequency (Δp and Δq)

(100 marks)

[End of Section III]