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

B.ASc. Degree Programme
Year II Semester II
End Semester Examination – January 2010

ANS 231-2 Selection and Animal Breeding Techniques - Essay (Section II)

Instructions
Answer all questions in Section II.
No. of questions : Two (02)
No. of pages : Two (02)
Time : One hour (01 hr.)
Total marks allocated : 60%

Index No:

1.

i) The coat colour of Labrador dogs is controlled by a **major gene (B)** where B allele (Black colour) is dominant over its alternative recessive allele. If a breeder needs to produce progeny of **120 dogs only with yellow colour.** If he practicing **complete selection against dominant gene**

(a) Calculate the allelic frequency after selection

(b) Find the change of allelic frequency

Where the initial gene frequencies,

$p = f(B) = 0.5$

$q = f(b) = 0.5$

ii) The **complete selection against recessive allele is not possible** even with qualitative traits. Comment on above statement

(100 Marks)

2.

i) Give **five (05) different types** of **records** that can be use for selection

ii) The production levels of progeny of different AI bulls are given below

Bull	Mean milk yield of daughters (l/yr)
A	4000
B	3500
C	4500
D	3000

If the population mean equal to 3750 and heritability for milk yield 0.35,

a) Calculate the **Breeding value** for each progeny

b) Select the **best breeding bull**

(40 marks)

i) Write short notes on,

a) **Traditional Breed Structure** **(30 marks)**

b) **Tendom selection** **(30 marks)**

[End of Section II]