

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR, FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2004/2005

ASC – 3101 ANIMAL BREEDING AND TECHNIQUES (2:30/00)

Answer All Questions

Time: Two hours

1. Discuss the following;
 - a. Methods of (Multiple trait) selection of farm animals
 - b. Methods of breeding of farm animals

2. Write an account on the following
 - a. Requirements for a successful Artificial Insemination program in cattle
 - b. Methods of heat detection in cattle

3. Write short notes on the following
 - a. Estimated breeding value
 - b. Individual selection
 - c. Lifetime performance records

4.
 - a. Define the inbreeding co-efficient
 - b. Calculate the inbreeding co-efficient of individual Z (F_z) from the following generation ($F_s = 0.25$)

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c. Average milk yield of the cows in the Eastern University farm is 8 liters/day/cow.

The manager is planning to select cows having an average milk yield of 10 liters/day, for his breeding stock. Assuming the h^2 for milk yield as 0.25, answer the following

- i. What is the selection differential?
- ii. What is the expected response to selection in the following year?
- iii. If he uses own records of the cows for selection, what is the accuracy of selection?