

Answer all questions

Time allowed: Two hours

Briefly explain

- Phenotypic and genetic effects of inbreeding in goats
- Properties of metric traits

Briefly discuss the steps involved in embryo transfer technique in cattle.

Write short notes on

- Selection aids in breeding programs
- Heritability
- Methods of semen collection

The following details on body weight gain have been recorded in a selection program carried out to increase growth rate of rabbits in the Livestock farm, Eastern University, Sri Lanka.

Population mean: 20 g/day

Mean of the selected group: 32 g/day

Mean of the progeny: 28 g/day

Phenotypic variance is 16 (g/day)^2

Calculate the following

- Selection differential
- Response to selection
- Heritability
- Additive standard deviation of the flock
- Selection intensity
- Give suggestions to increase the response to selection.