

IAS Mains Animal Husbandry and Veterinary Science 2003

Paper-I

Section A

1. Write short notes on any three of the following in about-200 words each: ($20 \times 3 = 60$)
 - a. Micro nutrients as a regular of nutrients utilization
 - b. Genotype-environment interaction
 - c. Theory of Lamarckism
 - d. Synchronization of oestrus in cow
2. What are the feed manipulator? How are they beneficial in the feeding of ruminants and poultry? Discuss with examples as to how each category of feed manipulator affects production of these species and efficiency of feed utilization (60).
3. Describe the symptoms of heat in cows and buffaloes. What is the best time of breeding to obtain best results? How breeding efficiency is measured? Suggest suitable management practices to improve the breeding efficiency of above species (60).
4. Describe the effect of selection on gene frequencies. If one individual is albino out of twenty thousand and albino is a recessive trait, how many generations will it take to reduce the gene frequency to half the present value. Can genetic drift affect a change in frequency of a gene in a population? Discuss (60)

Section B

5. Write short notes on any three of the following in about 200 words each: ($20 \times 3 = 60$)
 - a. Holding-up and let down of milk
 - b. Heritability vs. Repeatability
 - c. Service period us Conception rates
 - d. Neonatal nutrition
6. Compare dairying under mixed farming and specialized dairy farming primarily from the standpoint of economic returns to the owner. Which one of these is best suited to an average Indian farmer and why? Explain in detail (60).
7. Write about the care of cow before and after parturition . Also describe the care of the newly born calf. Is it practical to practice weaning in India? Write a note on methods of/raising weaned calves (60).
8. "Individuality tells us what an animal seems to be his pedigree tells us what he ought to be. But the performance of his progeny tells us what he is." Discuss the merits and demerits of methods of selection . Suggest as to what should be the method of selection to adopt to bring about a steady and long term improvement in productivity of indigenous dairy livestock (60).