IAS Mains Animal Husbandry and Veterinary Science 1996

Paper-I

Section A

1. Write short notes on any three of the following in about 200 words each:
    a. Role of B vitamins in metabolism of energy and protein
    b. BMR and its estimation
    c. Subabool and Khejri as fodder
    d. Management of animals under draught conditions

2. Trace the evolution of the modern-day feeding standards. Critically examine the suitability of applying one of the commonly accepted modern-day feeding standards under Indian conditions.

3. Timely breeding of farm animals is an essential requirement for optimum lifetime production. In relation to this requirement, give the symptoms of heat and duration of oestrus in cattle, goat, sheep and swine. Write a note on the most suitable time for breeding/insemination in the above species. Enumerate management practices to improve breeding efficiency.

4. Briefly discuss the physical and physiological mechanism of adaptation of sheep to hot-arid environment. Suggest suitable management practices to overcome the heat stress in sheep.

Section B

5. Write short notes on any three of the following in about 200 words each:
    a. Essential buildings to be erected (with their floor area) on a 100 dairy-cow unit
    b. Feeding Records
    c. Hardy Weinberg Law
    d. Significance of pedigree selection

6. “Consumer's price of milk is related to cost of production of milk.” Comment upon the statement. Discuss the factors affecting cost of production of milk. Suggest measures to reduce the cost of milk production on an average sized cow farm.

7. In relation to swine raising:
    a. Briefly discuss the amounts of protein required by swine. Name at least three protein supplements that provide good quality protein for swine and at least three protein supplements that are unsatisfactory as the only protein supplements for stall fed pigs.
    b. Management practices to be adopted to prevent PSE conditions of meat.
    c. Indicate measures for preventing anaemia and hair-lessness in piglets.

8. Distinguish between heritability and repeatability. What are the uses of heritability? Discuss merits and demerits of different methods of estimating heritability.