

IAS Mains Animal Husbandry and Veterinary Science 1993

Paper-I

Section A

1. Write short notes on any three of the following in about 200 words each:
 - a. Protected proteins
 - b. Transport and storage of iron in animal body
 - c. Need for dietary essential fatty acids in pigs
 - d. Grading of whole milk and cream
2. Answer the following questions
 - a. Write down the important steps for preparation of artificial vagina prior to collection of semen.
 - b. Discuss the six important factors which affect the survival of spermatozoa after collection.
3. Explain the term “Biotechnology” Write in detail about the profitable application of biotechnology in poultry feed industry.
4. Discuss in detail about the rumen fermentation of straw in adult cattle. Also state the effect of feeding high fibre diet and high concentrate diet on the quality and quantity of milk.

Section B

5. Write short notes on any three of the following in about 200 words each:
 - a. Bomb calorimeter
 - b. Limiting amino acid
 - c. Recombined and reconstituted milk
 - d. By-pass protein
6. What are the limitations of using Proximate analysis to determine feedvalue? How far Van Soest method removes the flaws, particularly for carbohydrate components? Describe the broad outlines of estimating lignin content by Van Soest method.
7. Define lactation, lactogenesis, galactopoiesis, milk ejection and involution in dairy cattle. Describe in detail the role of major hormones in regulating lactation in a cow.
8. Write down the schedule of feeding pigs with examples of feed ingredient composition during:
 - a. Growth-finishing stage
 - b. Gestation period
 - c. Lactation period