

ANIMAL HUSBANDRY AND VETERINARY SCIENCE
(Paper I)

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are EIGHT questions divided in two Sections.

Candidate has to attempt FIVE questions in all.

Question Nos. 1 and 5 are compulsory and out of the remaining, any THREE are to be attempted choosing at least ONE question from each Section.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Write short notes on any three of the following in about 200 words each: **20×3=60**
- (a) Metabolic disorders in ruminants caused due to imbalance in diet
 - (b) Protein metabolism in ruminants and monogastrics
 - (c) Scientific basis of the adage 'Prevention is better than cure'
 - (d) Scientific reasons for guinea-pigs being used for Vitamin C research
2. Describe protein, energy, mineral and fibre requirements of laying hen and compute a suitable ration for 1000 layers under Indian conditions. **60**
3. Discuss the mechanism of action of various growth promoting agents to enhance the energetic efficiency and nitrogen retention in ruminants. **60**
4. Write a critical review on feeding Standards indicating their advantages and limitations. **60**

SECTION 'B'

5. Write short notes on any three of the following in about 200 words each: **20×3=60**
- (a) Male & female reproductive systems of cattle with neat diagrams
 - (b) Current status of recombinant DNA technology
 - (c) Breed synthesis in India
 - (d) Mixed dairy farming vs. Specialised farming
6. What is meant by breeding efficiency? How can it be improved in dairy animals? Describe different methods of measuring breeding efficiency. **60**
7. What are hormones? Discuss the role of hormones in conversion of blood precursors into milk constituents in alveolar cells. Clarify whether milk is secreted during milking or in the interval of milkings. **60**
8. Discuss the various methods of improvement of poor quality roughages. Which method is suitable and applicable under Indian conditions? Also indicate the method commonly used by the farmers to improve the nutritional value of straws **60**