

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

Paper I

0000044

Time Allowed : Three Hours

Maximum Marks : 200

QUESTION PAPER SPECIFIC INSTRUCTIONS

Please read each of the following instructions carefully before attempting questions.

There are EIGHT questions in all, out of which FIVE are to be attempted.

Question Nos. 1 and 5 are compulsory. Out of the remaining SIX questions, THREE are to be attempted selecting at least ONE question from each of the two Sections A and B.

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

Answers must be written in ENGLISH only.

Neat sketches may be drawn, wherever required.

SECTION 'A'

- | | | |
|-------|--|--------|
| 1. | Write short notes on the following : | 8×5=40 |
| 1.(a) | Discuss the role of mammary glands in transferring food from mother to offsprings. | 8 |
| 1.(b) | Role of Embryo Transfer Technology techniques in cattle improvement in India. | 8 |
| 1.(c) | How does meiosis cell division occur? Illustrate its division diagrammatically. | 8 |
| 1.(d) | Write in brief calf feeding practices from first month of age to its maturity. | 8 |
| 1.(e) | What are the important traits influencing milk production in buffaloes? | 8 |
| 2.(a) | Explain the functioning of KAMDHENU PROJECT and how does it help in improving the milk production in the country? | 15 |
| 2.(b) | Elaborate the role of primary (village level) milk collection societies in the country and write about milk collection practices followed by them. | 15 |
| 2.(c) | Discuss the hormonal control of Oestrous Cycle in buffaloes. | 10 |

- 3.(a) Discuss the different types of milk recording systems at National level and explain the significance of milk recording at the dairy farm. 20
- 3.(b) What is the role of major hormones secreted by anterior pituitary and hypothalamus in relation to their function associated with mammary glands. 20
- 4.(a) Define balanced feed. What are the basic requirements for balancing feed for milk production in cattle? 15
- 4.(b) Discuss the major contributing factors for balancing the feed. 15
- 4.(c) Why silage is important for animals? 10

SECTION 'B'

5. Differentiate between the following : 8×5=40
- 5.(a) Systematic forces and Dispersive forces. 8
- 5.(b) Progeny testing and Pedigree selection. 8
- 5.(c) Species hybridization and Cross-breeding. 8
- 5.(d) Metabolizable energy and Digestible energy. 8
- 5.(e) Restricted feeding and Challenged feeding. 8
- 6.(a) Define semen. Enlist the freezing techniques used for freezing and storing bovine semen. Discuss briefly the widely used methods for freezing semen. 20
- 6.(b) Discuss the Artificial insemination practices followed in dairy cattles in India. 10
- 6.(c) Outline the importance of collection of semen in Artificial insemination program. 10
- 7.(a) Discuss genotype-environmental correlation and genotype-environment interaction in sheep production. 15
- 7.(b) What are the advantages of Mixed farming? 10
- 7.(c) What is specialized dairy farming? How does it differ from mixed and diversified farming? 15
- 8.(a) Enlist the reasons of balanced nutrition in poultry. Classify the poultry feed for different age-group of birds. 20
- 8.(b) Define the term heritability. Enlist the different methods of its estimation. Discuss any two methods in detail with their advantages. 20