

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) Methods to control heat stress in buffaloes
 - (b) Induction of lactation in cows
 - (c) Probiotics
 - (d) Nutrients in meat
2. Discuss the principle of deep freezing of semen. What are the advantages and disadvantages of various packaging systems used for deep freezing of semen? Enumerate the precautions to be taken at the time of thawing of frozen semen for artificial insemination? **60**
3. Describe the male reproductive system giving names and functions of different organs. What is Cryptorchidism? Draw and label the diagram of reproductive organs of a bull. **60**
4. What is the major source of energy in ruminants? Give energy metabolism of propionate in details. What will be the effect of cooked concentrate on milking ruminants? **60**

SECTION 'B'

5. Write short notes on any three of the following in about 200 words each: **20×3=60**
- (a) Structural chromosomal aberrations
 - (b) Sex influenced and sex limited characters
 - (c) Qualitative and quantitative inheritance
 - (d) Importance of herd recording
6. Define inbreeding. What are the consequences of inbreeding? Discuss various uses of inbreeding. **60**
7. What is progeny testing? How can it be best done for Indian buffaloes? What is the status of progeny testing of buffaloes in India? **60**
8. What do you understand by commercial dairy farming? How does dairy farming in India differ from the advanced countries? **60**