This question paper contains 3 printed pages]

Code No. : 02(I) *Roll No. .....*

0(CCEM)9

ANIMAL HUSBANDRY & V. S.

Paper : I

Time Allowed : 3 hours] *[Maximum Marks : 300*

Note : (i) Answers must be written in ***English.***

(ii) Number of marks carried by each question are indicated at the end of the question.

(iii) Part/Parts of the same question must be answered together and should not be interposed between answers to other questions.

(iv) ***The answer to each question or part thereof should begin on a fresh page.***

(v) ***Your answers should be precise and coherent.***

(vi) Candidates should attempt Question Nos. **1** *and* **2** *which are* **compulsory** *and any* **four** *out of the remaining questions.*

P. T. O.

1. Write short notes on any *five* of the following : $5 \times 10 = 50$

   (a) Fat soluble vitamins,

   (b) Biological value of proteins,

   (c) Care and management of heifers,

   (d) Advantages of Artificial Insemination,

   (e) Sanitary and Phytosanitary measures,

   (f) Cryptorchidism,

   (g) Crude protein, Rumen degraded protein and Rumen undegraded protein (UDP).

2. Differentiate between any *five* of the following : $5 \times 10 = 50$

   (a) Vitrification and Freezing,

   (b) Testicular hypoplesia and Testicular degeneration,

   (c) Nutraceuticals and Functional Foods,

   (d) Shrikhand and Dahi (Indian Curd),

   (e) Superovulation and Synchronization,

   (f) Renin and Rennin.

3. Describe Marker Assisted Selection and its importance on various economic traits in livestock. 50

4. Describe physical and chemical properties of milk and its health attributes. 50

5. Describe embryo transfer technology, its advantages and disadvantages, and also explain IVF, nuclear fusion and embryo cloning. 50

6. Give a critical review of various feeding standards along with their merits and limitations. Discuss various methods of measuring feed energy. 50

7. Explain the mechanism of adaptation and animal behaviour under climatic stress conditions. Describe various methods for controlling stress in farm animals. 50

8. Briefly explain the various feeding, management and health care of animals during drought and floods. 50

9. Describe nutrition–reproduction interaction in livestock. 50
