

8. (a) Define homogenization of milk and state how homogenization is accomplished. How does homogenization differ from standardization ? Discuss the merits and demerits of marketing standardized and homogenized milk under Indian conditions.
- (b) Discuss in brief development of mammary glands and physiology of lactation in cow. Do you advocate three times milking daily in a dairy farm ? Justify your statement. 45

Total No. of Printed Pages : 4

Roll No. ....

**1[CCE.M]1**

**Animal Husbandry and Veterinary  
Science–I  
(02) PP**

Time : Three Hours

Maximum Marks : 300

**INSTRUCTIONS**

- (i) Answers must be written in English.
- (ii) The number of marks carried by each question is indicated at the end of the question.
- (iii) The answer to each question or part thereof should begin on a fresh page.
- (iv) Your answers should be precise and coherent.
- (v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.
- (vi) Candidates should attempt question nos. **1** and **5** which are compulsory and any **four** more out of the remaining questions, selecting at least **one** question from each section.
- (vii) If you encounter any typographical error, please read it as it appears in the text book.
- (viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.

- (ix) No continuation sheets shall be provided to any candidate under any circumstances.
- (x) Candidates shall put a cross (X) on blank pages of Answer Script.
- (xi) No blank page be left in between answer to various questions.

### SECTION–A

1. Write short notes on any **three** of the following in about **200** words each :
  - (a) Forages as sources of energy
  - (b) Growth stimulants
  - (c) Inter-relationships of magnesium with calcium and phosphorus in animal nutrition
  - (d) Diluents for buffalo bull semen. 60
2. (a) State how does nutritive requirements of broilers differ from those of chicken and layers.
- (b) What is the importance of protein quality in rations of poultry ? Which amino acids may be deficient in practical otherwise well balanced rations for chicks ? Give an example of how an amino acid deficiency can be corrected.
- (c) Which measure of energy, net or metabolizable, is the measure of choice in formulating rations of poultry and why ? Discuss in brief the utility of high energy rations for broilers and layers. 45
3. "Digestibility coefficients are constant for a given feed or species." Critically examine the statement throwing light on factors affecting digestibility of feed in ruminants. Is the nitrogen balance a better indicator of feeding value of protein than a feed's digestible protein content ? Discuss. 45

4. (a) What is the nature of growth ? How growth is measured ? Describe the hormones involved in growth. Discuss in brief the conditions causing retarded growth and accelerated growth in a farm animal of your choice.
- (b) Inadequate nutrition has been the singlemost important factor responsible for poor milk yield of dairy animals in India. What is the status of feed availability, in terms of quantity and quality, for dairy animals in India ? Suggest measures to improve the same, keeping in view the economy and human demand factor. 45

### SECTION–B

5. Write short notes on any **three** of the following in about **200** words each :
  - (a) Yoghurt
  - (b) Battery system of housing poultry
  - (c) Feeding animals under drought conditions
  - (d) Milk pricing policy. 60
6. 'With modern advances in dairying, the dairy cow is unequalled as an efficient producer of human food.' Comment upon the statement outlining, in some detail, the modern advances in dairying that have made the dairy farming a profitable venture rather than a subsistence one. Briefly discuss the role of personnel management in increasing dairy profits. 45
7. With reference to goat keeping :
  - (a) Write a detailed note on goat as producer of milk, meat and fibre.
  - (b) Salient features of feeding and care of kids.
  - (c) State how does the feed and feeding habits of goats differ from other farm animals. 45