

## ANIMAL HUSBANDRY AND VETERINARY SCIENCE

1. Write notes on any five of the following

- a) Role of volatile fatty acids in ruminant nutrition.
- b) Chemotherapeutics in management of neoplasm in animals
- c) Endocrine control of initiation of lactation in cow.
- d) Methods of controlling climatic stress.
- e) Energy and protein requirements for egg production.
- f) Role of kidneys in acid base balance in body.
- g) Methods of estimating inbreeding coefficient.

(5x6=30)

### PART – I

2. a) What are out breeding, out crossing, cross breeding and grading? Why have we gone for cross breeding in dairy cattle in India?

b) Define mutation and discuss various methods for detecting mutations and mutation rate.

c) Define Hardy-Weinberg Law and list the processes responsible for changes in gene frequency.

(3x10=30)

3. a) Define balance ration. What is prerequisite for balance ration formulation?

b) Describe the principle of deep freezing of semen. What are the advantages and disadvantages of various packaging systems used for deep freezing of semen?

c) Discuss the factors determining the efficiency of dairy animals.

(3x10=30)

4. a) Define heritability. Discuss merits and demerits of different methods of estimating heritability.

b) Define direct and indirect calorimetry? Describe the carbon-nitrogen balance method for estimation of heat production in animal body.

(2x15=30)

### PART – II

5. a) What is the scientific basis of cheese making? Give flow diagram of cheese manufacture.

b) What do you mean by value added meat products? Give classification of different types of sausages.

c) Name different methods adopted to educate farmers under rural conditions. Which one is the best and why?

(3x10=30)

6. a) Enlist different systems of housing poultry birds? Which system of poultry housing will you recommend to poultry farmers in India and why?

b) Discuss the food born and water born diseases of zoonotic origin.

c) Write an account on the methods of collection of samples for veterolegal investigation.

(3x10=30)

7. a) Discuss diagnosis, symptoms and control of swine fever and its economic impact in India.

b) Discuss the role of cytokines in protection of animals from diseases as well as in immune response in allergic and autoimmune diseases.

(2x15=30)

