IFS 2005 Animal Husbandry and Vetenary Sciences

Paper-I

Section-A

- 1. Write short notes on any four of the following in not more than 150 words
- (a) Greenhouse gases and global warming.
- (10)
- (b) NPN utilization in cow and pig.
- (10)
- (c) Apparent digestibility and true digestibility.
- (10)
- (d) Mendelian principles.
- (10)
- (e) Biological methods used for feed utilization.
- (10)
- 2. (i) What is colostrum? Give its compositions. Describe significance of feeding colostrum to newly born calves.
- (20)
- (ii) Discuss feeding of dairy animals in natural calamities. What precautions should be taken to overcome scarcity of feed and fodders?
- (20)
- 3. What is a balanced ration? Formulate a ration along with concentrate mixture for a cow having 400 kg body weight and yielding 12 kg milk of 4.0 per cent fat based on protein and energy requirement. (40)
- 4. Describe the following:
- (a) What is growth? Give chemical composition of animal body at different stages of growth.
- (10)
- (b) Physiology of egg formation in poultry.
- (10)
- (c) Give composition of frozen semen. How A.V. is prepared?
- (10)
- (d) Micro and macro climate.
- (10)

Section-B

- 5. Write short notes on any four of the following in not more than 150 words.
- (a) Osteomalacia and osteoporosis.
- (10)
- (b) Breed synthesis with examples.
- (10)
- (c) Oestrus cycle and its role in animal production.
- (10)
- (d) Factors affecting semen production and quality preservation.
- (10)
- (e) Protein and energy requirements during different stages of growth in chicken broilers.
- (10)
- 6. Discuss various systems of breeding with their merits and demerits. Which system is suitable for Indian dairy animals? What breeding system should be used for producing draught animals? (40)
- 7. (a) Describe current status of feeds and fodders availability and requirement in India in terms of

quantity and quality.

(20)

(b) A farmer wants to start a dairy farm with 15 lactating buffaloes and their followers. Calculate the requirement for land, capital, building, feed and fodder,

(20)

8. (a) Discuss the role of carbohydrate and fat as sources of energy.

(20)

(b) Discuss the role of water and minerals in animal body.

(20)

Paper-II

Section-A

- 1. Write short notes on any four of the following in about 150 words each
- $(10 \times 4 = 40)$
- (a) Synovial joints.
- (b) Antineoplastic chemotherapeutic agents.
- (c) Colisepticaemia in calves, lambs and kids,
- (d) Cytoplasmic cell inclusions (Pigments and Pathogens)
- (e) Edible casein, its standards (BIS) and manufacturing method.
- 2. Classify Placenta. Describe vascular supply and functional-structural relationship. (40)
- 3. Discuss the comparative aspects of the protocol for the caesarean section in dog and cow. (40)
- 4. (a) Describe the constraints in the transfer of technology with practical solutions.

(2.0)

(b) Discuss the structure, composition and nutritive value of eggs.

(20)

Section-B

- 5. Write short notes on any four of the following in about 150 words each:
- $(10 \times 4 = 40)$
- (a) Heart sounds and murmurs
- (b) Equine infectious anemia
- (c) Diagnosis and control of paratuberculosis
- (d) Microbial spoilage of eggs
- (e) Adulteration of meats and its detection
- 6. Discuss the patho-epidemiology and zoonotic risks of listeriosis. Describe clinical signs, lesions, diagnosis, treatment and control of this disease in goats.

(40)

- 7. (a) Describe the collection and preparation of tissues for histopathological examination, stepwise. (20)
- (b) Discuss the disease profile and diagnostic plan of various forms of hypomagnesemic tetany in ruminants.

(20)

8. (a) Describe the theories of churning in butter manufacture.

(20)

- (b) Write down definition, standards (PFA) and detailed method of manufacture of recombined milk.
- (20)