

CSM – 9/17
Animal Husbandry and Veterinary Science
Paper – II

Time : 3 hours

Full Marks : 300

The figures in the right-hand margin indicate marks.

*Candidates should attempt Q. No. 1 from Section – A and Q. No. 5 from Section – B which are compulsory and any **three** of the remaining questions selecting at least **one** from each Section.*

SECTION – A

1. Answer any **three** of the following : $20 \times 3 = 60$
 - (a) What is air pollution ? Classify the pollutants and write the effect of air pollution on animal health by various pollutants of industrial origin.
 - (b) Role of domestic animals (species wise) in transmission of Zoonotic diseases. Discuss about the etiology, transmission, symptoms and control measures of Rabies.

- (c) Write a brief note on neural and chemical control of respiration. Explain O_2 -Hb dissociation curve.
- (d) What do you mean by extension teaching? Write briefly about the steps in extension teaching. Write about any two individual contact methods of extension teaching.
2. (a) Describe the process of cell division in mammals. What are the significant achievements due to these divisions in the mammalian body? 30
- (b) What is placentation? Classify the placenta in various domestic animals 30
3. (a) Describe the glomerular capillary membrane and give its permeability characters and explain how much of organic acids are formed in the body and how they are eliminated by the kidney. 30
- (b) Describe the role of the various hormones on Carbohydrate and Protein metabolism. 30
4. (a) Discuss the factors affecting drug action. 30

- (b) Classify protein synthesis inhibitors as antibacterial and describe aminoglycosides in detail. 30

SECTION – B

5. Answer any **three** of the following :

- (a) Describe chemical changes that occur during rigor mortis. What is meant by ultimate pH and how it influence keeping quality of meat ?

10+10 = 20

- (b) Explain, in detail, the factors influencing the quality of eggs. Explain the general preservation methods of shell eggs.

10+10 = 20

- (c) Elaborate the quality control tests for milk and milk products. Explain, in detail, the UHT processing of milk.

10+10 = 20

- (d) List the major indigenous dairy products. Explain, in detail, the preparation of Srikhand.

10+10 = 20

6. Answer any **two** of the following :

(a) What is slaughter house by-product? Explain the use and importance of utilization of slaughter house by-products. 30

(b) Briefly, explain, about the basic principles of preservation of meat. Explain the advantages and method of Retort pouch processing. 30

(c) Briefly, explain the various methods of recognition of Meat adulteration. 30

7. Answer any **three** of the following :

(a) Enumerate the various bacterial diseases of cattle. Write, in brief, about etiology, pathogenesis, clinical signs, treatment and prevention of black quarter.

$$5+2+3+5+2+3 = 20$$

(b) What is blue tongue ? Give the etiology, methods of transmission, clinical sign, diagnosis and control in Sheep.

$$2+2+5+5+3+3 = 20$$

- (c) Define parturient paresis and write its etiology, signs, diagnosis, treatment and prevention in dairy cattle.

$$2+3+5+3+4+3 = 20$$

- (d) Write short notes on any **five** of the following :

$$4 \times 5 = 20$$

- (i) Dehydration
- (ii) Perosis in poultry
- (iii) Polioencephalomalacia
- (iv) Bloat
- (v) Piglet anaemia
- (vi) Ranikhet Disease in poultry
- (vii) Glanders
- (viii) Metritis Mastitis Agalactia MMA syndrome in sows
- (ix) IBR in cattle (Infectious Bovine rhinotracheitis)

8. (a) (i) What are the differences in internal fixation and external fixation of fractures ?

$$7\frac{1}{2} + 7\frac{1}{2} = 15$$

(ii) Discuss the etiology, symptoms, diagnosis, anatomical considerations and treatment of perineal hernia in male dogs. $2+2+2+4+5 = 15$

(b) (i) What is abomasal displacement ? Discuss the pathophysiology, symptoms, diagnosis and treatment of abomasal displacement in cow. $2+2+2+4+5 = 15$

(ii) What is pre-emptive analgesia ? How do you manage pain during the pre-operative and post-operative periods ? $5+5+5 = 15$

