

CSM – 9/18

**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 **three** of the remaining*

*questions, selecting at least **one** from each Section.*

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SECTION – A

1. Answer any **three** of the following : $20 \times 3 = 60$

- (a) What is Hormone ? Discuss about the anterior and posterior pituitary hormones in relation to their physiological activities in herbivorous animals.

(b) What is Hypoxia ? Classify hypoxia with example. Discuss the mechanism of O_2 and CO_2 exchange in animals. Name the receptors which play role in relation to gaseous exchange.

(c) What is the role of kidney in relation to acid-base balance ? State the causes of renal failure. What measures are to be undertaken for the management of chronic renal failure in dog in relation to diet, drug and environment?

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(d) What are Autocoids ? How would you differentiate autocoid from hormone ? Classify autocoids. Discuss the pharmacological role of histamine in various organs of animals.

2. (a) Why Pharmacokinetic study is of value in drug delivery system ? Discuss various aspects of drug absorption and distribution.

30

- (b) Name the abnormal constituents of urine. Discuss about their detection through biochemical tests. Write about their adverse effect on organs and systems of animals.

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3. (a) What do you know about skin coat of domestic animals ? Describe on various layers of skin in dog. Give the morphological picture and cycle of hair. What is the importance of hair in relation to diagnosis of skin disorders ? 30
- (b) Give a description of skeletal system of fowl. How would you differentiate smooth muscle from skeletal muscle. Name some muscle specific enzymes ? Describe the features for which bird can fly. 30
4. (a) Anthrax is known Agricultural anthrax and Industrial anthrax – discuss on it. Name some occupational diseases acquired from animals – their transmission and abatement. 30

(b) "Prevention is better than cure". Justify it.

Discuss the constraints which are interfering animal husbandry programme in India. Suggest some transfer of technology for extension workers they can propagate to promote the cause of rural mass

30

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SECTION - B

5. Answer any three of the following :

(a) How will you measure the internal qualities of eggs ? Write, in detail, about microbial spoilage of eggs and physical changes in eggs due to quality deterioration.

10+5+5 = 20

(b) Classify the methods of preservation of meat. Write, in detail, about any one of the modern method of preservation of meat. What are the principles involved in preparation of different poultry food ?

5+5+10 = 20

(c) Write an essay on humane method of slaughter of food animals. Write, in detail, about sanitary measures to be adopted in a meat plant. $10+10 = 20$

(d) Define skimming efficiency. What are the factors that affect fat losses in skim milk during separation? Write an essay about preparation of butter. $3+7+10 = 20$

6. Answer any two of the following :

(a) Explain, in detail, the various managerial practices for a successful broiler farming operations. How will you manage poultry farms in summer and winter seasons?

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(b) Describe about the non-meat ingredients in meat processing. Discuss the changes that occur after slaughter of animal and conversion of muscle to meat.

$15+15 = 30$

- (c) Define Khoa. Enumerate the physical quality of khoa from cow and buffalo milk. Write, in detail, about method of preparation, yield and overrun in khoa. 30

7. Answer any three of the following :

- (a) What is Milk Fever ? Write about its pathogenesis, clinical findings, diagnosis, treatment and management of milk fever in cattle. $2+3+5+3+4+3 = 20$

- (b) What is Obstructive Urolithiasis ? Write, in detail, about clinical symptoms, diagnosis, surgical procedure for urolithiasis and for rupture urinary bladder in a bullock.

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- (c) What is Piglet Anemia ? Write down its etiology, pathogenesis, clinical findings, diagnosis and treatment.

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

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

$4 \times 5 = 20$

- (i) Vacuum packaging

- (ii) Rectal prolapse
- (iii) Keratitis
- (iv) Irradiation of meat
- (v) Killed vaccines
- (vi) Baby pig disease
- (vii) Epidural anaesthesia
- (viii) Postparturient hemoglobinuria
- (ix) Frontier and ring area vaccination

8. (a) (i) List the various viral diseases affecting sheep. Discuss the epizootiology, transmission, pathogenesis, symptoms, prophylaxis, symptoms, prophylaxis and control of blue tongue.

$$2+2+2+3+2+2+2 = 15$$

(ii) What are the factors associated with spread of infection ? Describe the measures for prevention, control of brucellosis. Merits and demerits of vaccine against brucellosis.

$$4+6+5 = 15$$

(b) (i) What is Anthrax ? Write about the epizootiology, pathogenesis, diagnosis, disposal of carcass infected with Anthrax. $3+3+3+3+3 = 15$

(ii) What is immunity and write, in detail, about different types of immunity with suitable examples. Write, in detail, about the disease control strategies.

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