

<b>CSM – 9/20</b>
<b>Animal Husbandry &amp; Veterinary Science</b>
<b>Paper – II</b>

*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 :
  - (a) Describe the methods of preparation and processing of tissues for histological examination. 10+10 = 20
  - (b) What are germ layers ? Describe the endothermal, mesothermal and ectothermal derivatives of germ layers. 10+10 = 20

- (c) What are the structures involved in epidural anaesthesia ?  $10+10 = 20$
- (d) Describe the functional anatomy in relation to egg production in fowls.  $10+10 = 20$
2. (a) Define the efficiency of heart, and explain the effects of ions on heart functions.  $15+15 = 30$
- (b) Describe the structure and function of kidneys, and explain the renal regulation of acid-base balance.  $15+15 = 30$
3. (a) Define antimicrobials with examples. Explain the principles of chemotherapy in microbial infections.  $10+20 = 30$
- (b) Explain the animal housing requirements for specific categories of domestic animals namely pregnant cows, milking cows, pigs, sheep, broiler birds and japanese quails.  $5+5+5+5+5+5 = 30$
4. (a) Describe occupational zoonotic disease. Describe the role of animals and birds in prevalence and transmission of zoonotic diseases.  $10+20 = 30$

- (b) What are the methods adopted to educate farmers under rural conditions ? Explain the various constraints in transfer of technology.

15+15 = 30

### SECTION – B

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

- (a) Pathogenesis, symptoms, post mortem lesions, diagnosis and control of Foot and Mouth disease in cattle. 4+4+4+4+4 = 20

- (b) Define herd immunity. Describe the principles and methods of immunisation of animals against viral diseases of animals.

5+15 = 20

- (c) What are the general pre-anaesthetic medications ? Describe the step-wise procedure to carry out caesarean operation in buffaloes.

10+10 = 20

- (d) What are the common disease investigation techniques ? Describe the methods of collection of materials for laboratory diagnosis.

10+10 = 20

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

- (a) Explain, in detail, on the nutritive properties of pasteurised, standardised, sterilised, toned and double toned milk.

$6+6+6+6+6 = 30$

- (b) What are the grades of whole milk and skimmed milk ? Describe the BIS specification for ice cream.  $15+15 = 30$

- (c) Describe the sanitation requirement of clean and safe milk and milk plant equipment. 30

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

- (a) Explain, in detail, about adulteration of meat and its detection methods.  $10+10 = 20$

- (b) Describe the physical and chemical characteristics of meat.  $10+10 = 20$

- (c) What are the step-wise procedure for meat inspection and judgement of carcass meat cuts ?  $10+10 = 20$

- (d) Answer any **five** of the following :  $4 \times 5 = 20$

- (i) Pale soft exudates  
(ii) Vacuum packaging

- (iii) Electrical stimulation of meat
  - (iv) Pregnancy hypoglycaemia
  - (v) Pulpy kidney disease
  - (vi) Weeping eye in rabbits
  - (vii) *Taenia solium*
  - (viii) Swine fever
  - (ix) Coxiellosis
  - (x) One health approach
8. (a) (i) Housing, feeding, breeding and disease management of domestic rabbits. 15
- (ii) Describe the products developed from organs of the body for the use as food and pharmaceuticals. 15
- (b) (i) Describe the chemical composition and nutritive value of poultry meat. 15
- (ii) Write, in details, on common poultry diseases and explain in particular about the status of avian influenza. 15

