

CS-11/06

**ANIMAL HUSBANDRY AND VETERINARY
SCIENCE**

Paper-II

Time—Three Hours

Full Marks—300

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

All questions carry equal marks.

SECTION-A

1. Attempt any **three** of the following :— $3 \times 20 = 60$
- (a) What is shock ? Once the shock has been severe enough, discuss the factors responsible for causing a vicious cycle of progressively decreasing cardiac output.
 - (b) Explain the gaseous transport in relation to respiratory process in large animals. What is the physiological advantage of panting over polypnea ?
 - (c) What do you understand by 'plasma clearance' by the kidney ? Discuss the hormonal regulation of renal functions in animals.

- (d) Discuss briefly the cardiac murmurs. Justify that cardiac defects increase the heart's work load.
2. (a) What is 'Rubber jaw syndrome' ? Discuss the calcium homeostasis in the body in an intact animal and a thyroidectomized animal. 30
- (b) Elaborate the mechanism of action, antimicrobial spectrum, clinical use and adverse effects of antimicrobial agents. 30
3. (a) Describe the histological structure of a typical placenta and classify it with suitable examples. 30
- (b) Describe the surface anatomy of the heart, lung, liver, spleen, compound stomach, small and large intestines, and pancreas in cattle. 30
4. (a) Emerging zoonoses is the threat to public health in the changing global scenario. — Justify the statement mentioning few such viral zoonoses with their epidemiology and preventive aspects. 30
- (b) State the role of water, soil, air and habitation as well as industrialization on animal-agriculture, specially in relation to their performance and production. 30

SECTION-B

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

3×20=60

- (a) Describe the curing process for a meat product.
Describe the preparation of ham and bacon. 10+10
- (b) Write briefly about intermediate moisture meat.
Describe the preparation and storage of sausages.
5+15
- (c) Discuss the mechanism of curing of meat. Discuss
chemical residues in meat and meat products with
adverse effects in human health. 5+15
- (d) Write the principle and different methods of
pasteurization of milk along with advantages and
disadvantages. Discuss the effect of pasteurization
on nutritional and microbial quality of milk. 5+15

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

3×20=60

- (a) Discuss the microbial spoilage of meat. Write
briefly the microbial quality control measures to be
followed to safeguard meat and meat products
from farm to consumers table. 15+15
- (b) Write briefly about the antemortem care adopted
for production of hygienic and wholesome meat
and discuss their importance in development of
meat quality. Describe effluent treatment systems
in an abattoir with a suitable diagram. 15+15

- (c) Draw the flow diagram of cheese manufacture. Write briefly about the concentrated milk products and discuss briefly about the utilization of milk by-products. 5+10+15

7. (a) Define 'Milk Fever' and state its etiology, clinical signs, diagnosis, treatment and control.

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

- (b) Enlist the names of diseases caused by *Clostridium* spp of organisms in cows. Discuss the epidemiology, clinical signs, diagnosis, treatment and control of 'Black Quarter'.

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

- (c) What is 'Surra' ? Enumerate epidemiology, clinical signs, diagnosis, treatment and control of 'Surra'.

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

- (d) Write short notes (any *five*) :— 4×5=20

- (i) Epizootiology
- (ii) Swine Erysipelas
- (iii) OIE
- (iv) Bloat in cow
- (v) Fracture and dislocation
- (vi) Vaccine and Vaccination
- (vii) Avitaminosis in calf
- (viii) PPR
- (ix) Enterotoxaemia in sheep.

8. (a) (i) Name one important parasitic disease which causes serious problem in goat rearing in Orissa. Describe in brief its epidemiology, pathogenesis, clinical signs, diagnosis, treatment and control.

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

- (ii) Define FMD. Discuss on Epidemiology, clinical signs, diagnosis treatment and the strategy adopted for control of FMD.

$2+3+2+2+2+2+4=15$

- (b) (i) What is Colic ? Classify colic in horses. Discuss in brief the measures adopted to get relief from different conditions of colic.

$4+6+5=15$

- (ii) 'Ranikhet Disease' is responsible for financial loss in poultry industry.'—Explain the reasons. Tabulate vaccination schedule of commercial and breeding stock of broiler birds.

$5+10=15$