

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

Paper – II

Time Allowed : **Three Hours**

Maximum Marks : **200**

Question Paper Specific Instructions

Please read each of the following instructions carefully before attempting questions :

*There are **EIGHT** questions in all, out of which **FIVE** are to be attempted.*

*Questions no. **1** and **5** are compulsory. Out of the remaining **SIX** questions, **THREE** are to be attempted selecting at least **ONE** question from each of the two Sections A and B.*

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

*Answers must be written in **ENGLISH** only.*

Neat sketches may be drawn, wherever required.

SECTION A

Q1. Write short notes on the following :

8×5=40

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| (a) The different features in bones and respiratory system of birds and domestic animals | 8 |
| (b) Mechanism of erythropoiesis and its regulation in animal body | 8 |
| (c) Avian influenza virus and its effect on human health and poultry industry | 8 |
| (d) Management of tympany in large ruminants | 8 |
| (e) Factors to be considered in setting achievable goals for a disease control programme | 8 |

- Q2.** (a) Furnish in detail the techniques for preparation and processing of animal tissues for histo-pathological examination in a laboratory. 15
- (b) Describe in detail the factors that influence blood coagulation and the process of coagulation in animal system. 15
- (c) Describe in detail about the foetal components of placenta of porcine with a neat sketch. 10
- Q3.** (a) A carcass of a one-year-old bull was presented to you for post-mortem examination, with the history of sudden onset of lameness, depression, anorexia, high rise of body temperature, hot and painful swelling on shoulder and gluteal region since a day. The affected muscles on its incision exhibited dark red to black coloured foul smelling, serosanguineous fluid having gas bubbles of varying sizes. The thoracic cavity and pericardial sac revealed blood-strained fluid with little amount of fibrin. Marked oedema along with congestion was observed in the lungs. There were haemorrhages on intestinal mucosa. The impression smear's examination of oedematous fluid showed presence of gram positive, rod-shaped organisms.
- (i) What is your tentative diagnosis and methods for its confirmative diagnosis? 5
- (ii) Give control measures and treatment schedule for such cases. 10
- (b) During the White Revolution, the Government of India had introduced cross-breeding programme towards self-sufficiency in milk production. List out the diseases that emerged in the cross-bred animals and write in detail about the pathogenesis, diagnosis, treatment and control measures of Anaplasmosis. 15
- (c) Explain in detail about the collection, methods of preservation and dispatch of various kinds of samples from a dead animal for laboratory investigation especially for suspected poisoning. 10

- Q4.** (a) Define and classify Zoonosis. Explain in detail the common means of transmission of pathogens from animals to humans and also list out the higher risk of serious illness in zoonotic diseases. 15
- (b) What is epidemiological measure ? Write the applications of epidemiology in disease control. 15
- (c) Write in detail about the cellular mechanism of drug action. 10

SECTION B

Q5. Write short notes on the following :

8×5=40

- (a) Sources of contamination in clean milk production and how to overcome the above. 8
- (b) Concept of value addition in meat. 8
- (c) Why is there an increase in demand for organic milk ? Write in brief about farm fresh milk and organic milk. 8
- (d) How stomachs and intestines of a slaughtered ruminant are processed to obtain better price ? 8
- (e) Constraints in the course of technology dissemination at the farmers' doors. 8

Q6. (a) What are the factors deteriorating the quality of market milk ? Describe in detail how Codex Alimentarius Commission is helpful in quality control of milk and milk products. 15

(b) Describe in detail about the various processing steps involved in commercial ghee, ice-cream and khoa production and the legal quality standards adopted in India. 15

(c) List out the common adulterants in Indian milk and write about the various methods of detection of milk adulteration at home level. 10

Q7. (a) How can the quality of mutton and chicken be improved with the existing slaughter and meat sale facilities in our country ? 15

(b) What are meat products ? Classify meat products and write in detail about the need for processing meat products and their preservation. 15

(c) Sixty-five percent of a buffalo is by-product. Explain, in detail, how an entrepreneur is going to manage a slaughter house profitably. 10

- Q8.** (a) To improve the socio-economic condition and sustainable livelihood of small-holding farmers, suggest innovative Animal husbandry practices which fit in their resources and environment. 15
- (b) How can electronic media in rural conditions serve as an effective source of advice and assistance to farmers to improve their production and marketing of their produce ? 15
- (c) Write in detail about the merits and demerits of rabbit rearing in India. 10

