

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.

Neat sketches may be drawn, wherever required.

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

SECTION A

- Q1.** (a) What are the two distinct fractions of blood and how are they involved in functions of blood in an animal ? 8
- (b) What are the modern concepts involved in preventing the production diseases in dairy animals ? Provide the line of treatment for milk fever. 8
- (c) Define and classify Placenta. Discuss the characteristic features of different types of placenta. 8
- (d) How are the concepts and principles of extension education useful to a forest official for better forest management ? 8
- (e) Write about the importance of tissue processing in histological studies and the steps involved in it. 8
- Q2.** (a) Antimicrobial Resistance (AMR) is a present day problem. Explain in detail the principles of antimicrobial chemotherapy with emphasis on classification of antimicrobials. 15
- (b) Climate change may be the greatest challenge of our time. How is climate change going to affect animal health and production and by what means may the effect be minimized to improve animal health for better production ? 15
- (c) Define hormones. What are the important hormones of adrenal cortex ? Give a brief note on their importance. 10
- Q3.** (a) Differentiate between local, regional and general anaesthesia with their importance. Indicate the site of operation and organs involved during castration of dog. 15
- (b) Discuss in detail the modern concepts and schedule of immunisation against important infectious diseases in an organised dairy farm. 15
- (c) Discuss in brief the anatomical features of superficial lymph nodes and their vessels in cattle, with their role in immune system and disease conditions. 10

- Q4.** (a) Discuss in detail the important bio-chemical and immunological tests for diagnosis of viral diseases in bovines. 15
- (b) What are the important points to be considered by the laboratory before transferring technology from lab to land in the veterinary field ? Explain the above in detail with successful technologies and discuss the problems or constraints in transfer of technology. 15
- (c) Explain in detail the importance of staining with the principles of staining tissues and types of stain used in veterinary laboratories. 10

SECTION B

- Q5.** (a) (i) List out the important occupational zoonotic diseases a person can acquire while working in 6
- (I) poultry farms.
 - (II) slaughter houses or meat processing plants.
 - (III) dairy farms.
- (ii) Write the measures to be taken to safeguard the health of personnel involved in the above workplaces. 2
- (b) In our country, there is now an increased demand for organic/farm-fresh milk. Give your opinion on the quality of the above and also suggest the measures to be taken in procurement, collection and transport of such milk to be delivered safely to the consumers. 8
- (c) Immature sheep/goats are being slaughtered to meet the demand for meat. Discuss in brief about the demerits of the above and suggest strategies to overcome the problem and meet the demand. 8
- (d) Broilers are mostly slaughtered in meat shops and the waste generated is not handled properly. In this context, what are the difficulties faced by the local body administration ? Briefly suggest the means to overcome the present day situation. 8
- (e) Due to an increase in the number of stray dogs, incidence of rabies is also increasing, hence there is an increase in cruelty to dogs, even death due to poisoning of large number of stray dogs at a time. In such veterolegal cases, what are the samples to be collected for investigation ? How are they collected and sent to the laboratory ? 8
- Q6.** (a) What is condensed milk and how does it differ from evaporated milk ? Where are these milks used commercially ? Briefly explain the defects in condensed and evaporated milk. 15
- (b) Due to the unhygienic status of poultry wet markets, the government wants to cease marketing of chicken meat through wet markets. What will be your suggestion to the government for improving the market for delivering safe chicken meat to the consumer ? 15
- (c) Globally, we are now moving towards One Health concept. Define Zoonosis. Classify it in terms of reservoir host and discuss in detail about diseases in relation to pet lovers (Dogs, Cats, Birds). 10

- Q7.** (a) Value added dairy products like flavoured milk are available in the Indian market. What are the most common flavours available ? Explain in detail the purpose of developing flavoured milk and the method of manufacturing the same. 15
- (b) Explain in detail the concept of value addition in the meat sector. List out the value added meat products in the Indian market and give your suggestions for improving the quality of meat products at economical cost. 15
- (c) What are the handling methods and techniques available in the meat sector to minimize meat spoilage in our country ? Discuss in detail the suitable handling methods and technologies for marketing safe meat in rural and urban Indian market. 10
- Q8.** (a) What are the quality issues to be addressed by the Indian meat industry to enter into the Western countries market ? Give your suggestions for improving the quality of meat to get better price in the global market. 15
- (b) Under-utilisation of slaughter house by-products is a major economical loss in the meat sector as well as an environmental problem in our country. Explain in detail about the measures to be taken by the local bodies to improve the status of slaughter house by-product utilisation to generate wealth from waste and avoid environmental pollution. 15
- (c) Write in detail about epidemiology and application of epidemiological measures in disease control. 10

