

**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. Write short notes on the following :**

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|-----|--|---|
| (a) | Histology of testis in cattle in relation to reproduction  | 8 |
| (b) | Components of Hering-Breuer reflex   | 8 |
| (c) | Theories of drug receptor interaction, different types of receptors and signalling pathways involved in different drug mediated action | 8 |
| (d) | Etiology, clinical symptoms, diagnosis and treatment of Wobbler syndrome in dogs   | 8 |
| (e) | Etiology, clinical symptoms, vaccination and treatment of Lumpy Skin Disease (LSD) of cattle   | 8 |

- Q2.** (a) Describe the healing of fracture immobilized with coaptation and complications. 15
- (b) Discuss the impact of livestock and livestock-based industries on environment. 15
- (c) Describe the etiology, diagnosis and treatment of Frothy Bloat in cows. 10
- Q3.** (a) Discuss implantation and maternal recognition of placenta in cattle. 10
- (b) (i) Describe the pathway of thrombin formation. 10
- (ii) Describe the normal hierarchy of pacemaker activity in the heart. 5
- (c) (i) Describe the etiology, diagnosis and treatment of Downer cow syndrome. 10
- (ii) Describe nutritional muscular dystrophy disorder. 5
- Q4.** (a) (i) Discuss the structure, nature and distribution of cranial nerves originating from medulla oblongata. 8
- (ii) Describe the functional anatomy of oviduct in relation to egg production in birds. 7
- (b) (i) How is extracellular fluid ( $\text{Na}^+$ ) regulated? 8
- (ii) Discuss the path of hypothalamo-hypophyseal portal system. 7
- (c) (i) Enlist different types of immunity and describe the factors that affect the level of innate immunity in animals. 5
- (ii) Describe the concept and objectives of Animal Disease-free zones. 5

## SECTION B

### Q5. Write short notes on the following :

- (a) Quarantine of animals in prevention of spread of diseases 8
- (b) Role of cooperative societies in milk procurement 8
- (c) Pre-slaughter care of food animals 8
- (d) Microbial spoilage of eggs and their prevention 8
- (e) Indigenous dairy products in India 8

- Q6. (a) Justify the veterinarian's role in public health activity that ultimately contributes to the welfare of society. 15
- (b) Enlist the fermented milk products. Describe the preparation, composition, specifications and importance of fermented milk products as immune boosters. 15
- (c) Define Homeostasis. Explain the various post-slaughter physico-chemical and biochemical changes that take place in meat. 10

- Q7. (a) Discuss the concept of meat emulsion and factors affecting the emulsion stability during preparation of emulsion-based meat products. 15
- (b) (i) Define grading and describe the grading of sheep carcasses. 8
- (ii) Explain clearly the decisions and action taken after conduct of postmortem examination of food animal carcasses. 7
- (c) Discuss Participatory Rural Appraisal (PRA) in extension education along with its benefits and limitations. 10

- Q8. (a) (i) Enlist the edible and inedible slaughterhouse by-products and discuss the utilization of edible by-products. 10
- (ii) Discuss the epidemiological features of air in disease transmission. 5
- (b) Define the concept of cream separation from milk and describe the different types of cream, legal standards, preservation and its uses. 15
- (c) Discuss the veterolegal aspects of death in animals. 10

