

**PUNJAB PUBLIC SERVICE COMMISSION**  
**COMBINED COMPETITIVE EXAMINATION**  
**FOR RECRUITMENT TO THE POSTS OF**  
**PROVINCIAL MANAGEMENT SERVICE, ETC -2023**  
**CASE NO. 1C2024**

**SUBJECT: VETERINARY SCIENCE (PAPER-I)**

**TIME ALLOWED: THREE HOURS**

**MAXIMUM MARKS: 100**

**NOTE:**

- i. All the parts (if any) of each Question must be attempted at one place instead of at different places.
- ii. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
- iii. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
- iv. Extra attempt of any question or any part of the question will not be considered.

**NOTE: Attempt FIVE Questions in All. Attempt in Urdu or English.**

**Q.No.1** The ruminants have chambered stomach. Explain in detail the structure and function of each chamber in the process of digestion in ruminants. **(20 Marks)**

**Q.No.2** Overuse of broad spectrum antibiotics has given rise to the issue of Multi Drug Resistance (MDR) in our local animals. Suggest strategies by which we can mitigate this issue. **(20 Marks)**

**Q.No.3** Give a brief about any two parasitic diseases that can cause abortion in animals. What measures would you suggest to avoid spread of such diseases? **(20 Marks)**

**Q.No.4** Following the vaccination schedule is vital in protecting livestock from various diseases. Please discuss in detail the etiology, pathogenesis and symptoms along with best time of vaccination for the prevalent diseases in cattle and buffaloes in Pakistan. **(20 Marks)**

**Q.No.5** Describe the objectives of meat inspection, including ante-mortem and post-mortem examination. Discuss the characteristics of good quality meat, and explain how to dispose of condemned meat. **(20 Marks)**

**Q.No.6** Give an account of recombinant bovine somatotropin (rBST) hormone. Discuss the effects of rBST on health and reproduction of dairy cattle and buffaloes. Include in your answer merit and demerit of use of rBST in dairy cattle and buffaloes. **(20 Marks)**

**Q.No.7** In Pakistan, the burgeoning dairy industry can play an important role in boosting the country's economy. Discuss in detail the factors affecting the development of the dairy industry in Pakistan. Also, give an action plan for the development of dairying in the country. **(20 Marks)**

**Q.No.8** In modern veterinary practice, radiology is of paramount importance. Discuss the application of radiology in veterinary practice. Also, describe the hazard associated with radiography and your mitigation measures. **(20 Marks)**

*10/07/2024*