

2017

ANIMAL HUSBANDRY AND VETERINARY SCIENCE - PAPER-I  
Time Allowed : 3 Hours

Full Marks : 200

If the questions attempted are in excess of the prescribed number, only the questions attempted first up to the prescribed number shall be valued and the remaining ones ignored.

Answers may be written either in English or in Bengali but all answers must be in one and the same language.

Group-A

Answer any three questions : 40X3=120

1. a) What is a Breed and when would you recognize a particular group of animals as a breed? 10  
b) Name the important Indigenous breeds of livestock extensively uses for livestock development programme with their short description. 15  
c) What are the major constraints, in your opinion, for improvement of livestock production in India? 15

2. a) Write about the Spoilage of meats under anaerobic conditions. What is the spoilage of pasteurized milk? 5+5=10  
b) What is aseptic packaging? Write about the packaging of cured meat. 5+5=10  
c) Describe the Auto-Oxidation Process. What is rigor mortis? Write about the sarcoplasmic protein and maillardreaction. 3+2+5=10  
d) Write brief notes on i) PSE ii) Bone darkening iii) Thaw Rigor 3+3+4=10

3. a) What is the difference between organic and inorganic minerals? Why Selenium (Se) is an essential nutrient? 5+5=10  
b) What is fat soluble and water soluble Vitamins? Which factors affect the requirements and utilizations of Vitamins? Write on effect of processing on bioavailability of Vitamins. 5+5+5=15  
c) What is forage, fodder and roughages? What is the difference between hay and silage making? What are the advances and disadvantages of Silage making? 5+5+5=15

4. a) Write down the aetiology and management of uterine torsion in bovine. 10  
b) Write down the differences between follicular and luteal cyst ? Mention the treatment protocol for both the cases. 10  
c) Write down the differences between mummification and maceration ? 10  
d) Describes the etiology , signs and treatment of testicular degeneration. 10

5. a) Write principles and practices in dairy cattle production management in tropical climate. 15



- b) Discuss Technological Advances in Goat Production and Management. 15
- c) Write about organic livestock and poultry farming with special reference to Indian scenario. 10

**Group-B**

6. Answer any four of the followings: 10X4=40

- Give gross composition of cow milk. How "Lactation period " and "Breed " affect composition of milk.
- How urea is used to ruminants feed? What is the factors affecting urea utilization?
- Similarities and dissimilarities in formal education and extension education.
- Role of animals in the economy and society. Constraints in transfer of animal husbandry technologies.
- Define the condition "frothy bloat". Which kind of grazing and diets are particularly known to cause this condition ? What measures can be taken to reduce its occurrence?

7. Write briefly on any five of the followings: 8X5=40

- What do you mean by Biological Value of dietary protein?
- ICT application- Concept and Definition in Veterinary Extension system
- What is estrus synchronization ? Write down the criteria for successful controlled breeding.
- What is feed additives? What is the difference between prebiotic and probiotics?
- Differences between rural and urban society.
- Milk replacer and it's composition.