

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5787

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Unique Paper Code : 2534001003

Name of the Paper : Microbes in Animal Health

Name of the Course : **B.Sc. (Hons.) Microbiology**

Semester : VI, PART III, (UGCF-2022)

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions. **All** questions carry equal marks.
3. Attempt **all parts** of a single question together.

Q1.A) Define the following terms:

(1.5x6=9)

- i. Ruminants
- ii. Culling
- iii. Methanogens
- iv. Vector
- v. Livestock
- vi. Pets

B) Name the animal disease transmitted by each of the following vector:

(3)

1. Culicoides midges
2. Tsetse fly
3. Ixodid ticks

Q2. Write the preventive measures and treatment strategies for the following infectious diseases in animals:

(4X3=12)

- i. Anthrax
- ii. Babesiosis
- iii. Avian Influenza

Q3. Name the causative agent, describe signs & symptoms, routes of transmission, and control measures for the following animal diseases (*any two*): 6x2=12

- i Rabies
- ii Foot and mouth Disease
- iii Brucellosis

P.T.O.

Q4. Name the causative agent for the following infectious diseases in animals: (5)

- i. Rinderpest
- ii. Johne's disease
- iii. Canine distemper
- iv. Black quarter
- v. Campylobacteriosis

B) Describe the biosecurity measures and farm level practices for controlling and managing infectious animal diseases. (4)

C) Discuss the rationale behind Dry Cow Therapy (DCT) and the use of internal teat sealants in preventing new infections. (3)

Q5.A) Illustrate the structure of the ruminant stomach with a well-labeled diagram. Briefly describe the types and roles of the microorganisms found in the rumen. (4+6=10)

B) State the optimum pH range for rumen fluid and explain the physiological consequences of a significant deviation from this range. (2)

Q6. A) What is the significance of animal health in maintaining resilient public health systems and economic security? (4)

B) State whether the following statements are true or false: (5)

- i. Transovarial transmission is seen in Theileriosis.
- ii. Babesiosis in cattle is also known as Red water fever.
- iii. Corneal opacity and systemic decline are seen in typical advanced surra in dogs.
- iv. Hyalomma species are the primary vectors for the transmission of the pathogen *T. annulata*.
- v. Biosecurity measures are used only to treat animals that are already sick.

C) Write a short note on Aspergillosis in animals. (3)