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University Examinations 2024/2025

SECOND YEAR SECOND SEMESTER EXAMINATION FOR UPGRADING TO DIPLOMA IN ANIMAL HEALTH AND PRODUCTION

AAP 2134: COMMON ANIMAL DISEASES

DATE: JANUARY 2025 **TIME: 1½ HOURS**

INSTRUCTIONS:
*Answer question **ONE** and any other **TWO** questions*

QUESTION ONE (30 MARKS)

a) Bacterial diseases in livestock are caused by various pathogens, such as *Brucella spp*. (causing brucellosis). Understanding the etiology, transmission, pathogenesis, and control measures for these bacterial diseases is essential for proper livestock management.

i. Explain the pathogenesis of the above disease in livestock (3 Marks)

ii. Outline the **THREE** preventive measures (3 Marks)

b) Viral infections in livestock can spread rapidly and cause high mortality and severe economic losses.

i. Describe the clinical signs and modes of transmission of Foot-and-Mouth Disease (FMD) in cloven-hoofed animals. (4 Marks)

ii. Propose a management plan to control the spread of viral diseases on a farm housing pigs, cattle, and small ruminants. (2 Marks)

c) Parasites, such as helminths and protozoa, significantly impact livestock health by causing malnutrition, weakening immune responses, and increasing susceptibility to secondary infections.

i. Discuss the effects of the above parasitic infestations on animal health (3 Marks)

ii. Explain how integrated pest management (IPM) can be used to control parasitic diseases in livestock. (3 Marks)

d) Monitoring and surveillance systems are vital for tracking disease outbreaks and controlling their spread in livestock populations.

i. Outline the difference between disease monitoring and disease surveillance (3 Marks)

ii. Briefly explain key components of an effective disease monitoring system (3 Marks)

e) Treatment plans for microbial diseases vary depending on the type of pathogen and the disease involved. Plans often include antimicrobial treatments, supportive care, and preventive measures such as vaccination and biosecurity.

i. Outline the key steps in developing a treatment plan for a bacterial disease such as colibacillosis in livestock. (4 Marks)

ii. Explain the impact of antimicrobial resistance on the effectiveness of treatment plans for microbial diseases in livestock (2 Marks)

QUESTION TWO (15 MARKS)

a) Recognizing symptoms of diseases in livestock is essential for early diagnosis and treatment.

i. Explain five common symptoms of a specific animal disease (5 Marks)

ii. Discuss the importance of observing behavioral changes and physiological symptoms in livestock when diagnosing diseases (10 Marks)

QUESTION THREE (15 MARKS)

Microbial diseases in livestock can result in several types of losses, including death, physical deformity, economic losses, reproductive issues, and reduced growth rates.

i. Discuss the impact on the reproductive health and growth rate (5 Marks)

ii. Explain the strategies that can be implemented to reduce the economic impact (10 Marks)

QUESTION FOUR (15 MARKS)

Mastitis is an infectious disease of the mammary gland caused by *Streptococcus agalactiae* and *Staphylococcus urens*. It affects all animals with mammary glands.

i. Explain the predisposing factors for the disease in dairy cattle (5 Marks)

ii. Discuss the control and treatment strategies for the disease (10 Marks)