

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

AGA 228

Department of Animal Science
BSc (Honours) Animal Health and Production Extension
Part II Examination
Principles of Disease Control [E1]

3 HOURS (100 Marks)

INSTRUCTIONS

Answer any **FOUR** questions. Each question carries **25 marks**.

JUN 2023

QUESTION 1

- (a) Outline the effects of diseases in livestock and the livestock industry. [10 marks]
- (b)
- (i) What is a zoonotic disease? [1 mark]
- (ii) List **two** examples for each of bacterial and viral zoonoses. [4 marks]
- (iii) Outline the control of zoonotic diseases. [10 marks]

QUESTION 2

- (a) Name the **two** types of disease outbreaks. [2 marks]
- (b) For **one** disease outbreak named in (a) above, outline the main steps taken during its investigation. [8 marks]
- (c) Discuss the methods used to control diseases in animal populations. [15 marks]

QUESTION 3

- (a) List **four** uses of the knowledge of disease spatial distribution in disease control. [4 marks]
- (b) Outline the modes of disease transmission in animal populations. [8 marks]
- (c) Outline the information required for effective tick control. [13 marks]

QUESTION 4

- (a) List **five** notifiable diseases in Zimbabwe. [5 marks]
- (b) Write short notes on the following:
- (i) Disease prevention [5 marks]
- (ii) Disease mapping [5 marks]
- (iii) Secular disease trends [5 marks]
- (iv) An epidemic curve [5 marks]

QUESTION 5

- (a) Outline the factors considered when formulating/designing animal disease control and preventive methods/strategies. [15 marks]
- (b) Outline the main activities done in containing and eliminating an epidemic disease using the stamping out by slaughter method. [10 marks]

QUESTION 6

- (a) Outline the control and preventive methods of foot-and-mouth disease (FMD) in Zimbabwe. [10 marks]
- (b) Explain the following terms:
 - (i) Vertical disease transmission [2 marks]
 - (ii) Biological disease vector [2 marks]
 - (iii) Endemic disease [2 marks]
 - (iv) Contiguous animal populations [2 marks]
 - (v) Disease prevalence [2 marks]
- (c) Explain zonation with respect to disease containment and elimination. [5 marks]

End of Exam Paper