

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

AGA 414

Department of Animal Science
BSc (Honours) Animal Science and Technology
Part 4 Examination
Meat Science

3 HOURS (100 Marks)
INSTRUCTIONS

JUN 2024

EPI

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

1. State and explain the five freedoms in animal welfare. [25 Marks]
2. Describe the process of conversion of muscle to meat. [25 marks]
3. Discuss how one would implement HCCP at a chicken processing plant. [25 marks]
4. Discuss the major components of meat quality under the following headings:
 - a) Ethical quality [5 Marks]
 - b) Palatability [5 Marks]
 - c) Appearance and gross composition [5 Marks]
 - d) Wholesomeness [5 Marks]
 - e) Yield and gross composition [5 Marks]
5. Discuss how meat quality is affected by pre- slaughter stress. [25 marks]
6. State how the following coordinates of the Commission International De l' Eclairage (CIE)" colour system (CIE, 1976) measure meat quality:
 - a) L* [9 marks]
 - b) a* [8 marks]
 - c) b* [8 marks]

End of Exam Paper