

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**  
**FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE**

AGA421

**Department of Agricultural Science**  
**Bachelor of Animal Science and Technology (Honours) Part III Examination**  
**Beef and Rangeland Management**

**3 HOURS (100 Marks)**

**INSTRUCTIONS**

 **OCT 2023**

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

1. Discuss the role of Beef production as a way to improve food security in Zimbabwe.  
[25 marks]
2. Write notes on the characteristics of beef breeds that should consider when venturing into beef production in Zimbabwe:  
[25 marks]
3. Discuss the socio-economic factors affecting beef production in Zimbabwe.  
[25 marks]
4. Write short notes on the importance of the following in livestock production:
  - a) Vaccination programme [6 marks]
  - b) Castration, dehorning and ear notching [6 marks]
  - c) Feed supplements for the beef herd. [7 marks]
  - d) Natural mating versus artificial insemination. [6 marks]
5. Discuss ways to improve rangelands in community shared lands. [25 marks]
6. Discuss the nutritional requirements of a steer and recommend to a farmer the sources of nutrients for the steer.  
[25 marks]

**End of Exam Paper**