

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE
AGA240

Department of Animal Science
BSc Agricultural Science Part II Examination
Animal Nutrition

NOV 2023

3 HOURS (100 Marks)

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

1.
 - a) It is recorded that an animal consumed 5kg/day of a feed that had 5% DM digestibility and excreted 3kg/day of faeces that had 45% DM. Compute %DM digestibility of the feed. [10 marks]
 - b) Discuss the following methods of measuring the digestibility of feed;
 - i. In vivo. [5 marks]
 - ii. In sacco. [5 marks]
 - iii. In vitro. [5 marks]
2. Discuss the purpose of feed evaluation in animal nutrition. [25 marks]
3. Discuss factors affecting vitamin requirement and utilisation in livestock [25 marks]
4. Discuss the importance of voluntary feed intake (VFI) in Dairy nutrition and the strategies that can be employed to improve on VFI. [25 marks]
5. Discuss the shortcomings of the Proximate Analysis methods and identify the newer methods developed and how they overcome these limitations. [25 marks]
6.
 - a) Discuss protein and energy digestion in the young(suckling) of ruminants. [10 marks]
 - b) Discuss animal and feed factors affecting the efficiency of nutrient digestion and absorption [15 marks]

END OF EXAMINATION PAPER