



FACULTY OF ALLIED HEALTH SCIENCES, UNIVERSITY OF RUHUNA
Department of Medical Laboratory Science
Fifth End Semester Assessment – 2021/2022 Batch
MLS 3112 Animal Research– SEQ

Date: 25th May 2026

Time: 1.30 p.m. – 2.30 p.m.

Duration: 01 hour

Index No.

Answer all questions.

01. 1.1 List five (05) reasons why animal research experiments are difficult to replace with alternative methods. (15 marks)
- 1.2 State the effects of standardization in animal experiments. (15 marks)
- 1.3 Define the terms “strain” and “breed”. (20 marks)
- 1.4 Briefly describe inbreeding, stating the advantages and disadvantages of the procedure. (25 marks)
- 1.5 Briefly explain the importance of standardization of feed and feeding practices in animal research. (25 marks)
02. 2.1 State the difference between the “microenvironment” and “macroenvironment” in an animal research facility. (10 marks)
- 2.2 Write short notes on the features of an acceptable primary enclosure, considering the following aspects: (30 marks)
 - 2.2.1. Structural environment
 - 2.2.2. Bedding
- 2.3 State five (05) factors that should be considered during the safe transportation of experimental animals. (20 marks)
- 2.4 State four (04) common parameters used in behavioral assessment during animal experiments. (10 marks)
- 2.5 Briefly describe the procedures followed in the assessment of the following types of behavior in rodents: (30 marks)
 - 2.5.1. Sensorimotor behavior
 - 2.5.2. Learning and memory
 - 2.5.3. Immobility and reflexes
 - 2.5.4. Aggression
