



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
B.Sc. Medical Laboratory Science Degree Programme
Year End Examination Year 3

3rd & 4th Batches – Animal Research- SEQ

Date: 28th September 2015

Time: 10.00-11.00am

Duration: 1 hour

6

Answer all questions.

Index Number:

1.0 1.1 What are the three R's in laboratory animal experiments? Define them.(Marks 15)

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1.2 State three examples from the past for the successful use of animals in biomedical research. (Marks 9)

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1.3 Write three ways by which animals can be replaced in research. (Marks 9)

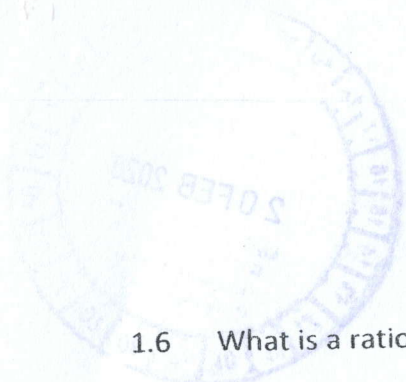
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1.4 Write two criteria to be considered when designing animal experiments. (Marks 6)

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1.5 List five factors to be considered when planning the environmental conditions for laboratory animals. (Marks 15)

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1.6 What is a ration or a diet of laboratory animals? (Marks 6)

1.7 What are the three types of laboratory animal diet? (Marks 9)

1.8 Write three substances that could be included in the diet/ration of an animal. (Marks 6)

1.9 Write three ways by which feeding may affect the outcome of an experiment. (Marks 9)

1.10 What are the steps involved in restraining a rat? (Marks 10)

1.11 Write two precautions that can be taken when administering a substance orally. (Marks 6)



2.0 2.1 State the significance of “humane end point” of an animal experiment. (Marks 10)

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2.2 State four intervention strategies to reduce pain /discomfort in animals. (Marks 16)

2.3 Briefly explain the ethics involved in handling and restraining laboratory animals. (Marks 15)

2.4 Write four general methods of euthanasia in laboratory animals?(Marks 12)

2.5 State the steps involved in collecting blood from mice by cardiac puncture. (Marks 15)

2.6 State four tools/parameters in the assessment of behavior of animals in experiments. (Marks 16)

2.7 What are the factors that should be considered in planning adequate housing for animal research? (Marks 16)

