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FACULTY OF ALLIED HEALTH SCIENCES, UNIVERSITY OF RUHUNA  
Department of Medical Laboratory Science  
Year End Examination - Year 3 - 8<sup>th</sup> Batch  
Animal Research (MLS 3202) - SEQ

Wednesday 6<sup>th</sup> November 2019      Time: 10.00 a.m. -11.00 a.m.      Duration: 1 hour

Answer all questions      Index Number:.....

43

1.

1.1

1.1.1 Briefly explain the "3R principle" related to ethics involved in animal research. (20 Marks)

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1.1.2 State four ways that can be used to minimize the pain or distress in animals used in experiments. (16 Marks)

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1.1.3 State **three** end points used in animal experiments. (24 Marks)

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1.1.4 Mention the end point which is recommended to be implemented in an experiment giving reasons. (20 Marks)

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1.2

1.2.1 State the significance of using analgesics in animal experiments. (8 Marks)

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1.2.2 State **three** factors to be considered in using analgesics. (12 Marks)

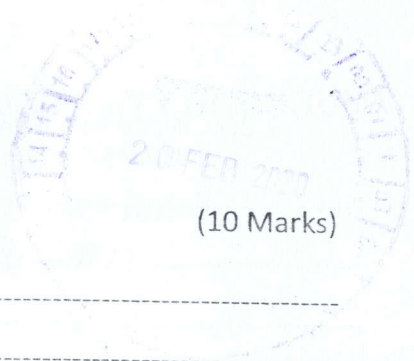
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2.

2.1

2.1.1 What is a mutation?

(10 Marks)

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42

2.1.2 Laboratory animals with mutations are used in experiments. List **three** examples.

(15 Marks)

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2.1.3 What are transgenic animals?

(15 Marks)

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2.1.4 State **one** difference in the reproductive physiology between the human and the animals.

(10 Marks)

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2.2

2.2.1 List **five** substances that could be included in the feed of an animal. (10 Marks)

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2.2.2 Write **five** advantages of including proteins in an animal feed.

(15 marks)

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2.2.3 Describe the precautions that could be taken to minimize the interference by variation in the composition of diet.

(25 Marks)

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