

FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA  
BSc Medical Laboratory Science Degree Programme  
Year-End Examination Year 1- 8<sup>th</sup> Batch  
Human Biology (MLS 1103) – Theory (SEQ)



1<sup>st</sup> February 2017

TIME: ONE HOUR

(10.15 a.m. to 11.15 a.m.)

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Index Number:.....

Answer one question from PART A and one question from PART B in the spaces given.

PART A- Physiology

1.

1.1 State the normal range of pH of blood. (5 marks)

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1.2 What are the main mechanisms through which the pH of the blood is maintained within a narrow range? (15 marks)

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1.3 Explain what happens to the pH of blood (50 marks)

i. in voluntary hyperventilation.

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2.

2.1 Name **two** diseases related to calcium homeostasis.

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2.2 Write **two** laboratory investigations that are useful in the diagnosis of the above mentioned diseases. (05 marks)

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2.3 Write short notes on the following.

2.3.1 Role of vitamin D in calcium homeostasis. (10 marks)

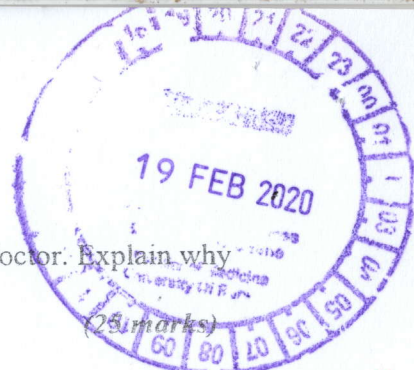
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2.3.2 Functions of aldosterone. (10 marks)

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2.4.2 Measurement of HbA1C was among the investigations requested by the doctor. Explain why the doctor may have requested to measure HbA1C.

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2.4.3 List 02 other laboratory investigations that may help in the diagnosis. (10 marks)

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2.4.4 List two non-pharmacological interventions that would help in the management. (10 marks)

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