

FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA

B.Sc. Medical Laboratory Science Degree Programme

Year End Examination Year 1, 7th Batch- December 2015

Human Biology (MLS1103) – Theory (Structured Essay)

Date: Monday 21st December 2015 Time: 10.15 am -11.15 am Duration: 1 Hour

Index Number:.....

(34)

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

PART A- Physiology

1.

(C)

1.1 State five factors important in tissue fluid formation? (10 marks)

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1.2 Write the equation that shows the relationship of these factors in tissue fluid formation. (10 marks)

(C)

12

1.3 Explain how oedema is developed in;

1.3.1 Patients with heart failure.

(20 marks)



(34)

(20 marks)

1.3.2 Bee-sting

10

1.4 Loop of Henle in the renal tubule helps in the development of an osmotic gradient from renal cortex to medulla. Briefly describe how this osmotic gradient is established and maintained.

(30 marks)

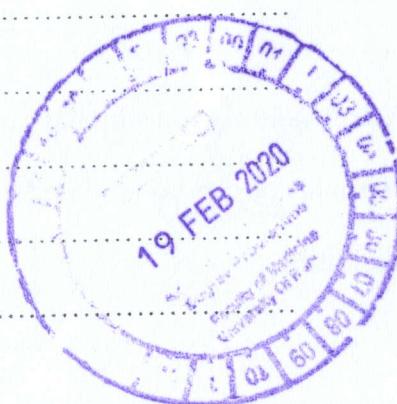
1.5 Explain how the osmotic gradient stated above helps in producing concentrated urine. (10 marks)

2.1 Name three (3) causes of massive ALT and AST elevations above 1000 IU/L. (10 marks)

2.2 Briefly describe the serological abnormalities seen in cholestatic hepatitis. (20 marks)

(32)

2.3 Name three (3) blood investigations that will be abnormal in cirrhosis and the expected pattern of abnormality (20 Marks)



2.4 What is/are the main ion/s responsible for resting membrane potential? (10 marks)

(33)

2.5 Describe briefly ionic movement in action potential.

(15 marks)

2.6 Describe briefly mechanism in synaptic transmission

(15 marks)

2.7 After transmission through a synapse, postsynaptic membrane can be excited (move close threshold) or can be inhibited (move away from threshold). How does it make these two different possibilities?

(10 marks)