



University of Ruhuna - Faculty of Medicine
Allied Health Sciences Degree Programme

B.Sc. Nursing Degree Programme

2nd End Semester Examination

NPH 1222- Physiology II

SEQ paper- Part A

February 2017

Duration: Half (½) hour

Index Number.....

1.

1.1 Serum C peptide level is used to assess the insulin secretory capacity of the pancreas. Explain the physiological basis of this. (20 marks)

1.2 Explain mechanism of action of insulin in reducing blood sugar

(20 marks)

1.3 State two (2) rapid actions of insulin (other than facilitation of entry of glucose into cells).
(10 marks)

2.

2.1 What is glomerular filtration rate (GFR)? (05 Marks)

2.2 State a factor/ condition that

a. Increase GFR (05 marks)

b. Decrease GFR (05 marks)

2.3 State two (2) hormones secreted by the kidney and state the main actions of them. (20 Marks)

2.4 When the glomerular filtrate is formed it is isotonic. When it passes along the renal tubule the volume decreases. However it remains isotonic at the end of proximal tubule, become hypertonic at the end of the descending limb of loop of Henley and become hypotonic at the end of ascending limb of loop of Henley. Explain this. (15 Marks)



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NPH 1222- Physiology II

SEQ paper- Part B

December 2015

Duration: Half (1/2) hour

Index Number.....

1. 1. Describe the basic components of a “reflex arc” (20 marks)

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1.2 Briefly describe the major differences between a mono and poly synaptic reflexes giving examples for each (30 marks)

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1.3 Describe the ionic basis of an action potential of a nerve

(40 marks)

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1.4 Classify the nerves based on conduction velocity and fibre diameter (10 marks)

