



Faculty of Medicine, University of Ruhuna
Third Examination for Medical Degrees (Part II) – July/August 2013
Pathology Paper I

Tuesday 30th July 2013

9.00 a.m. to 11.00 a.m.
Two hours

Answer **ALL FOUR** questions.
Answer each part in a **SEPARATE** book.

Part A

1.

- 1.1 Describe the pathological basis of anaemia in thalassaemia. (50 marks)
1.2 Discuss the pathological processes which lead to hepatomegaly giving examples. (50 marks)

Part B

2. A 70 year-old male was admitted to the Emergency Treatment Unit with a history of sudden onset severe chest pain of three hours duration. His Troponin I measured on the same day was elevated. He died on the fourth day of admission. He had diabetes mellitus for 20 years and hypertension for 15 years. He had been recently diagnosed of having chronic kidney disease (CKD).

- 2.1 Describe the macroscopic appearance of the heart in this patient. (50 marks)
2.2 Explain the factors which contributed to the pathogenesis of CKD in this patient. (20 marks)
2.3 Describe the likely macroscopic appearance of his kidneys. (15 marks)
2.4 Microscopic examination of his kidneys showed hyaline arteriosclerosis. Briefly explain the pathogenesis of hyaline arteriosclerosis in this patient. (15 marks)

Part C

3. Describe the macroscopic and microscopic features of

- 3.1 lung in lobar pneumonia. (50 marks)
3.2 abdomen in gastric carcinoma. (50 marks)

Part D

4. A 23 year-old female presented with weight gain and feeling sleepy during day time of three months duration. Physical examination revealed diffuse enlargement of the thyroid gland.

- 4.1 What is the most likely endocrine disorder for this clinical presentation? (10 marks)
4.2 State **two** likely conditions/diseases which could have affected the thyroid gland in this patient. (10 marks)
4.3 List **three** biochemical investigations you would do for this patient to arrive at a definitive diagnosis, and discuss the expected findings and the pathological basis. (30 marks)

Three years later she presented with a solitary nodule in her thyroid gland.

- 4.4 Briefly discuss the possible causes for a solitary thyroid nodule in this patient. (20 marks)
4.5 What is the most appropriate laboratory investigation to arrive at a diagnosis of the solitary thyroid nodule? (10 marks)
4.6 Describe the microscopic appearance of one of the causes mentioned in 4.4. (20 marks)