



Faculty of Medicine, University of Ruhuna
Third Examination for Medical Degrees (Part II) – December 2016
Pathology Paper I

Monday 19th December 2016

9.00 am to 11.00 am
Two hours

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

Part A

1. A 60 year-old long standing smoker presented with two months history of chronic cough associated with production of copious amounts of foul smelling purulent sputum. He had several episodes of haemoptysis. He has a past history of pulmonary tuberculosis.

- 1.1 List three (3) likely differential diagnoses in this patient? *(10 marks)*
- 1.2 Describe the macroscopic appearance of the lung/s in one of the diseases you have mentioned in 1.1 *(60 marks)*
- 1.3 Describe the microscopic appearance of the main pathological lesion in the lung/s in the disease mentioned in 1.2 *(20 marks)*
- 1.4 List two (2) systemic complications of the disease mentioned in 1.2 *(10 marks)*

Part B

2. A 65 year-old male is admitted with an extensive anterior myocardial infarction in the left ventricle.

- 2.1 List three (3) possible acute complications that this patient may develop and explain their pathological basis. *(30 marks)*
- 2.2 Describe the macroscopic and microscopic appearances of the heart of this patient on the 5th day following myocardial infarction. *(40 marks)*
- 2.3 He complains of bilateral ankle swelling and exertional dyspnoea five years later. Explain the pathological basis for the development of exertional dyspnoea in this patient. *(30 marks)*

Part C

3. Explain the pathological basis of the following.

- 3.1 Irregular coarse scarring of kidneys in a patient with diabetes mellitus. *(40 marks)*
- 3.2 Intestinal obstruction in a patient with Crohn's disease. *(30 marks)*
- 3.3 Malignant mesothelioma in a patient with a past history of heavy exposure to asbestos. *(30 marks)*

Part D

4.

4.1

4.1.1 Describe full blood count (FBC), blood picture (BP) and bone marrow (BM) findings expected in Vitamin B 12 deficiency explaining their pathological basis. *(25 marks)*

4.1.2 List three (3) causes for Vitamin B 12 deficiency and the underlying pathological basis. *(25 marks)*

4.2 Briefly describe the pathological basis of the following.

4.2.1 Secondary hyperparathyroidism in patients with chronic kidney disease. *(20 marks)*

4.2.2 Biochemical changes in blood and urine in a patient with acute viral hepatitis. *(30 marks)*