Faculty of Medicine University of Ruhuna
Third Examination for Medical Degrees (Part II) – September 2020
Pathology Paper I (repeat)

Tuesday 8th September 2020 9.00 am to 11.00 am
Two hours

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

Part A

1. A 25-year-old female was admitted to a medical ward with fever of one-month duration. She is a known patient with chronic rheumatic heart disease. A diagnosis of infective endocarditis was made for the current illness. She developed haematuria and left facial paralysis while in the ward.

1.1. Outline the pathogenesis of infective endocarditis in this patient ***(30 marks)***

1.2. Describe the pathogenesis of haematuria in infective endocarditis. ***(30 marks)***

1.3. Describe the microscopic appearance of the lesion in the brain which lead to facial paralysis. ***(10 marks)***

1.4. Describe the macroscopic appearance of the heart in this patient. ***(30 marks)***

Part B

2. Outline the pathological basis of

2.1. anaemia in chronic kidney disease ***(20 marks)***

2.2. bronchogenic squamous cell carcinoma in smokers ***(30 marks)***

2.3. increased bleeding tendency in chronic liver disease ***(30 marks)***

2.4. bedsores in bed ridden patients ***(20 marks)***

Part C

3. A 65-year-old male presented with vague ill health, loss of appetite and loss of weight. On examination he was anaemic. Colonoscopy examination revealed a fungating growth in the caecum. Following biopsy, he underwent right hemicolectomy.

2.1. What is the most likely diagnosis? ***(10 marks)***

2.2. Briefly describe the microscopic appearance of the lesion. ***(20 marks)***

2.3. Briefly describe the important prognostic factors. ***(30 marks)***

2.4 Explain the pathological basis of anaemia in this patient. ***(20 marks)***

2.5. List **five** (5) risk factors for the development of the condition mentioned in 2.1 ***(20 marks)***

Part D

4. A 37-year-old female presents to the Out Patient Department (OPD) complaining of increasing tiredness and weight gain. Physical examination revealed mild thyroid enlargement. The medical officer at OPD concluded that she was hypothyroid.

4.1. State the biochemical tests which are essential to assess her thyroid functional status and outline the expected findings. ***(10 marks)***

4.2. State **two** (2) likely causes for the thyroid enlargement in this patient. ***(10 marks)***

4.3. The patient was started on thyroxine replacement. Briefly outline how you would assess the adequacy of thyroxine replacement. ***(15 marks)***

This patient was lost for follow-up and presented to the medical clinic five years later with a solitary nodule in her thyroid gland.

4.4. What investigations should be done to determine the underlying pathology of the thyroid nodule? Describe the principles of sample collection and transport where relevant. ***(25 marks)***

4.5. State **three** (3) neoplasms which can cause a solitary nodule in the thyroid gland. ***(15 marks)***

4.6. Describe the morphology of **one** of the neoplasms mentioned in **4.5.** ***(25 marks)***