



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA  
FINAL EXAMINATION FOR MEDICAL DEGREES – MAY 2014  
MEDICINE PAPER 1

NEW FORMAT

(1.00 – 4.00 pm) 3 hours

Answer all questions. Answer each part in a separate answer book.

PART A

1. A 25-year-old previously healthy female presented with sudden onset left hemiplegia for two hours. Her CT scan of the brain was normal.
  - 1.1 What specific treatment would you consider for this patient? (20 marks)
  - 1.2 List **five** contraindications for the treatment you mentioned in 1.1. (20 marks)
  - 1.3 List **four** physical signs in the systems other than the nervous system that you would look for, to identify underlying causes. (20 marks)
  - 1.4 List **three** investigations you would arrange for this patient to find out the underlying causes. (10 marks)
  - 1.5 Briefly discuss the management of this patient during the first week. (30 marks)
  
2. A 65-year-old female was admitted with tiredness, shortness of breath on exertion and unsteadiness. She was pale and pigmented and had sensory ataxia. Full blood count results were as follows:  
Haemoglobin 6 g/dL, PCV 44%, MCV 110 fL/dL, MCH 26 pg,  
WBC 4200/mm<sup>3</sup>, Neutrophils 59%, lymphocytes 38%, Eosonophils 3%,  
Platelet count 155000/mm<sup>3</sup>
  - 2.1 What is the most likely haematological diagnosis? (10 marks)
  - 2.2 What is the complete clinical diagnosis? (20 marks)
  - 2.3 List **two** investigations to confirm the diagnosis mentioned in 2.2 (10 marks)
  - 2.4 Give **four** possible causes for the diagnosis you mentioned in 2.2 (20 marks)
  - 2.5 List **one** investigation each to confirm **three** of the causes you mentioned in 2.4 (15 marks)

## PART B

3. A 65-year-old male with hypertension for 15 years is admitted complaining of nausea, generalized pruritus and loss of appetite for three months. Physical examination revealed bilateral pitting ankle oedema.
- 3.1 What is the most likely clinical diagnosis? (10 marks)
  - 3.2 List **two** investigations that would confirm the diagnosis you mentioned in 3.1 with expected results. (20 marks)
  - 3.3 List **four** complications (other than hypertension) that is likely to be present in this patient. (20 marks)
  - 3.4 Briefly describe the steps in the management of **two** of the complications you mentioned in 3.3. (40 marks)
  - 3.5 What dietary advice would you give to this patient on discharge? (10 marks)
4. A 65-year-old male was brought to the Emergency and Trauma Centre with suspected poisoning one hour earlier.
- 4.1 Briefly discuss the steps in the management of this patient. (50 marks)
  - 4.2 List **five** physical signs that would support the diagnosis of organophosphate poisoning in this patient. (20 marks)
  - 4.3 List **two** life threatening complications of organophosphate poisoning. (20 marks)
  - 4.4 List three steps that you would recommend to prevent deliberate self-harm with agrochemicals. (10 marks)

## PART C

5. A 56-year-old male presented with three-week history of progressive breathlessness. On examination of his respiratory system, he was severely breathless with displacement of trachea to the left, reduced breath sounds over the left hemi thorax and stony dull percussion note over the mid and lower zones of the left lung.

- 5.1 What is the complete clinical diagnosis? (10 marks)
- 5.2 What immediate therapeutic measure is indicated on admission? (15 marks)
- 5.3 List **three** differential diagnoses for his clinical condition. (15 marks)
- 5.4 List **one** specific clinical feature in the history or physical examination that could support each of the diagnosis listed in 5.3. (30 marks)
- 5.5 Mention **one** diagnostic investigation with expected findings for each of the diagnosis listed in 5.3. (30 marks)

6. Following physical signs were elicited in a 64-year-old male who presented with chest pain followed by progressive breathlessness and orthopnea over six hours.

General examination – Obese male with moderate pallor of mucosa and bilateral pitting ankle oedema

Cardiovascular system - Pulse – 110 / min irregular, jugular venous pressure elevated 4 cm, blood pressure 178/ 110 mm Hg, displaced and heaving apex beat.

Respiratory system - bilateral fine crepitations over the mid and lower zones of both lungs.

- 6.1 What is the clinical diagnosis? (10 marks)
- 6.2 List **four** features in this patient that could have precipitated his current clinical condition. (30 marks)
- 6.3 List **five** investigations that should be arranged in this patient on admission mentioning the expected findings in each. (30 marks)
- 6.4 Name **three** pharmacological agents you would use to manage this patient and state their mode of action. (20 marks)
- 6.5 List **two** non-pharmacological measures you would advise for this patient. (10 marks)

## PART D

7. A 43-year-old female was admitted with fatigue, lethargy and feeling unwell for three weeks duration. She denied having fever, cough and significant weight loss. She is a mother of two children and had amenorrhoea for last seven years. Physical examination revealed pallor, but no jaundice, lymphadenopathy or hepato-splenomegaly.

On admission, her blood pressure was 86/62 mmHg, pulse 104 bpm, temperature 37.4 °C and respiratory rate 14/min. Her previous investigations including fasting blood sugar, serum electrolytes, liver transaminases, erythrocyte sedimentation rate (ESR) and full blood count were reported to be normal except haemoglobin of 10.2 g/dL. Thyroid function tests showed: serum T<sub>3</sub> of 0.063 ng/dL (0.2 - 0.5), serum free T<sub>4</sub> of 0.2 ng/dL (0.8 - 1.8) and TSH of 0.02 mu/L (0.5 - 5.5)

- 7.1 What is the most likely diagnosis? (20 marks)
- 7.2 List **three** features in the history that you would ask to identify the underlying cause for the diagnosis mentioned in 7.1 (30 marks)
- 7.3 List **four** investigations that should be carried out in order to support the diagnosis mentioned in 7.1 (20 marks)
- 7.4 Describe in brief how you would manage this patient within the first 24 hours of hospital admission. (20 marks)
- 7.5 What advice you would give to this patient on discharge? (10 marks)

8. A 48-year-old previously healthy male was admitted for further investigation of episodic epigastric pain for several months. Pain had been burning in nature and lasted for several hours.

- 8.1 List **four** possible differential diagnoses. (30 marks)
- 8.2 Describe in brief how clinical history would help you to differentiate the diagnoses mentioned in 8.1 (40 marks)
- 8.3 List **one** investigation each to confirm the diagnoses mentioned in 8.1 and state the expected findings. (20 marks)
- 8.4 Describe in brief the treatment of **one** of the conditions mentioned in 8.1 (10 marks)