FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE – NOVEMBER 2016
MEDICINE PAPER 1

21st November 2016

(1.00 – 4.00pm) 3 hours

Index Number:

Instructions:

1. Write your index number in all the pages.

2. Answer all questions.

3. Write your answers in the space given after each part of the question.

4. The space given is adequate for the expected answer.

5. Please return the question book at the end of the examination.

6. Required normal values are given within brackets.

Original

1. A 35 year old male was referred to a medical clinic with blood pressure values of 170/110, 180/100 and 175/ 115 mmHg on three separate days within two weeks.

1.1 Mention **five (05)** features in this patient's history that would indicate the likely aetiology of hypertension. (20 marks)

....

....

....

....

....

1.2 List **four (04)** physical signs that you would elicit in the physical examination to support a secondary cause for hypertension in this patient, indicating the relevant underlying pathology. (20 marks)

....

....

....

....

1.3 List **two (02)** physical signs which suggest that hypertension has been present undetected over a long period. (10 marks)

....

....

1.4 List **five (05)** investigations that you would request on the first clinic visit and indicate the reasons for your request. (30 marks)

....

....

....

....

....

....

....

....

....

1.5   List **three (03)** different classes of anti-hypertensive agents that you could start as the first line therapy and give one specific, common adverse effect of each class.

(20 marks)

....

....

....

2.   A 65-year-old male labourer presented with cough and haemoptysis of three weeks. He has felt feverish on most days during that period. Examination revealed coarse crepitations over the upper zone of the right lung.

2.1   List **three (03)** differential diagnoses.   (15 marks)

....

....

....

2.2   Briefly discuss the expected findings in the chest radiograph in each of the diagnoses mentioned.   (30 marks)

....

....

....

....

....

....

The patient received a course of antibiotics for one week. He had worsening

dyspnoea. Examination revealed dullness to percussion and absent breath sounds

over the right lung. The trachea was deviated to left side.

2.3   What complication would you suspect according to the given clinical findings?

(10 marks)

....

2.4   Briefly discuss further investigations and the treatment of the complication given

in 2.4.   (45 marks)

....

....

....

....

....

....

....

....

....

....

3. A 70-year-old male had a routine blood count performed by his General Practitioner. The results are as follows.

Hb 8 g/dL, WBC 3000/mm^3, Platelet count 70000/mm^3

3.1 Give **four (04)** differential diagnoses. (20 marks)

....

....

....

....

....

3.2 List the expected features in the blood picture and bone marrow in each of the conditions listed in 3.1. (40 marks)

....

....

....

....

....

....

....

....

....

3.3 List **four (04)** complications of chronic iron overloading following recurrent blood transfusions. (20 marks)

....

....

....

....

3.4 Briefly discuss the prevention of iron overload in patients who need recurrent transfusions. (20 marks)

....

....

....

....

....

....

....

....

....

....

4. A 25-year-old male presented with weight loss, polyuria and polydipsia for 3 weeks duration. Random blood sugar performed on admission was 456 mg/dL. He was drowsy and tachypnoeic. The blood pressure was 110/60 mmHg.

4.1 What is the most likely cause for his symptoms? (10 marks)

....

4.2 List **six (06)** investigations that you would request to manage this patient and briefly explain the expected findings. (40 marks)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

4.3   Briefly describe the immediate and the long term steps in the management of this

patient.   (50 marks)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

5. A previously healthy elderly male was admitted to medical causality ward with fever

    for five days and progressive reduction in urine output. He has been treated by a

    general practitioner on the first day of fever with several medications. After admission

    and catheterization, 50ml of urine was drained over a period of six hours.

5.1 What is the most likely underlying complication that had developed according to the

    information given?   (10 marks)

....

5.2 List **three (03)** possible underlying causes for the complication mentioned in 5.1 in this

    patient.   (15 marks)

....

....

....

5.3 Mention one feature that you would elicit in the history that would support each of the conditions mentioned in 5.2. (15 marks)

....

....

....

....

....

....

5.4 List **five (05)** investigations that are indicated within the first 24 hours of admission and briefly state the reasons for your selection. (30 marks)

....

....

....

....

....

5.5 List **four (04)** different life-threatening complications that may occur in this patient during the hospital stay, and mention specific therapy for each of them. (30 marks)

....

....

....

....

....

....

....

....

6. A 57-year-old male was admitted to a medical ward with pedal oedema. On examination there was moderate ascites.

Investigations: Hb 9.8 g/dL, white cell count 3800/mm^3, platelet count 84,000/mm^3, serum albumin 2.8 g/dL (normal 3.5-5.5), AST 88 U/L(normal10-40), ALT 73 U/L (normal 7-55), serum bilirubin 53 µmol/L(normal<27µmol/L), direct bilirubin 44 µmol/L(normal<7µmol/L) , serum sodium 123 mmol/L, potassium 4.2 mmol/L, serum creatinine 76 mg/dL, PT/INR 1.9

6.1 What is the most likely underlying diagnosis? (15 marks)

....

6.2 Comment on the prognosis of his condition considering clinical features and investigation results given. (25 marks)

....

....

....

....

....

....

6.3 List **five (05)** additional investigations that you would request to find out the aetiology of the diagnosis mentioned in (6.1) giving reasons for your selection. (30 marks)

....

....

....

....

....

6.4 One month later he was readmitted with hematemesis. Outline the immediate

management. (30 marks)

( )

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(

7. A 35-year-old man presented with left face, arm and leg weakness. He has no history

of head injury.

7.1 List **four (04)** cerebral pathologies that can cause this disability. (exclude trauma)

(20 marks)

....

....

....

....

7.2   Briefly discuss how you differentiate each of the pathologies that you mention in 7.1

based on the clinical history.   (40 marks)

....

....

....

....

....

7.3   Give the characteristic findings in the CT scan of the brain in each of the pathologies

mentioned in 7.1.   (40 marks)

....

....

....

....

....

....

....

....

8.   A 25-year-old female was admitted to the casualty with an overdose of

Paracetamol following an argument with her boyfriend. She was brought to the

hospital within one hour of ingestion of the tablets. On admission the GCS was 15/15.

8.1   List **three (03)** important features in the history/examination that determines that the

ingestion was life threatening?   (15 marks)

....

....

....

8.2   List **three (03)** immediate steps in the management of a life threatening paracetamol

overdose.   (30 marks)

....

....

....

....

....

....

....

....

8.3   List **Three (03)** clinical parameters you would continue to monitor in the next 48 hours.

                                                                                   (15 marks)

....

....

....

8.4   List **Three (03)** relevant investigations that you would arrange and indicate the optimal

time of sample collection.   (15 marks)

....

....

....

8.5   List **five (05)** clinical parameters that you would assess to decide the fitness for

discharge.   (15 marks)

....

....

....

....

....

8.6   Briefly state the follow up plan for this patient.   (10 marks)

....

....

....

....