



**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE – MAY 2018
MEDICINE PAPER 1**

May 21st 2018

(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.**

1. A 65-year-old mason was brought to the Emergency Treatment Unit (ETU) after he had collapsed on the floor. He had developed retrosternal chest pain two hours ago while working. On examination, he appeared unwell, sweaty and in pain. The pulse rate is 96 beats per minute, blood pressure is 100/70 mmHg in both arms. There was a 4th heart sound detected on auscultation. Lung bases were clear. The ECG showed 2mm ST elevation in leads V1-V6. The patient is being evaluated for thrombolytic therapy.

1.1 List **four** therapeutic measures that are useful prior to thrombolytic therapy. Briefly explain the rationale for each of these therapies. (40 marks)

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1.2 List **four** main contraindications for administration of thrombolytic therapy. (30 marks)

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1.3 Briefly discuss **three** possible explanations that would have led to the collapse of the patient. (20 marks)

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1.4 List the reasons for delays in seeking medical help by patients with acute chest pain. (10 marks)

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2. A 25-year-old female was referred for evaluation of anaemia. Examination revealed mild pallor with firm moderate splenomegaly. Her initial investigations are given below.

Haemoglobin – 8 g/dL, White cell count – 10300 / mm³ (N – 56%, L – 42%),

Platelet count – 140000 / mm³, Serum bilirubin – 2.3 mg/dL, direct bilirubin – 0.8 mg/dL

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

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2.2 List **four** possible causes for the diagnosis mentioned in 2.1. (20 marks)

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2.3 Mention **one** relevant feature you would elicit in history in support of each of the diagnoses listed in 2.2. (20 marks)

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2.4 List **four** investigations that you would perform to confirm the hematological diagnosis mentioned in 2.1 and mention the expected findings in each of them. (30 marks)

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2.5 List **four** investigations, you would perform to diagnose each of the underlying causes mentioned in 2.2. (20 marks)

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3. A 35-year-old man was brought to the hospital with a recent history of severe headache for three days.

3.1 Mention **three** features in the history that would indicate **three** different etiologies which need urgent investigations. (15 marks)

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3.2 Mention the diagnosis suspected with each feature in the history mentioned in 3.1. (15 marks)

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3.3 List the expected specific examination findings in each of the diagnoses in 3.2. (10 marks)

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3.4 List **one** specific investigation to support each of the diagnoses mentioned in 3.2 with expected results. (30 marks)

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3.5 Briefly discuss management of **one** of the conditions that you mentioned in 3.2. (30 marks)

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4.1 List **five** clinical features of alcohol withdrawal state.

(30 marks)

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4.2 List **two** complications of untreated alcohol withdrawal.

(20 marks)

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4.3 Briefly outline the pharmacological management of a patient presenting with alcohol withdrawal state.

(50 marks)

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5. The following are the investigations performed on a 25-year-old female admitted with an unconscious state.

Investigations:

Serum sodium	- 133 mmol/L	Serum potassium	- 5.0 mmol/L
Blood glucose	- 21.4 mmol/L	Serum creatinine	- 1.8 mg/dL (NR 0.6 – 1.5)
Blood pH	- 7.33	PaCO ₂	- 3.9 kPa (NR 4.6 – 6.1)
White cell count	- 16,200 mm ³ (neutrophils – 80%, lymphocytes - 18%, Eosinophils – 2%)		
Urinalysis	- Albumin trace, deposits – 20 – 30 pus cells, no red cells		

5.1 What is the most likely condition that accounts for her unconscious state? (20 marks)

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5.2 Describe the steps in the immediate management of this patient. (80 marks)

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6. A previously healthy 25-year-old man was admitted with bilateral ankle oedema and shortness of breath of 5 days. He had passed only a small quantity of red coloured urine during the last 24 hours. Examination on admission showed raised JVP and blood pressure of 160/95 mmHg.

6.1 What is the most likely diagnosis? (10 marks)

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6.2 How would you manage him in the hospital? (40 marks)

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7.2 Briefly discuss the management of this patient.

(50 marks)

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8. A 65-year-old male was admitted with right sided chest pain, fever and cough of 10 days duration. He is a smoker and consumes alcohol daily for the last 5 years. Examination revealed temperature 101⁰F, respiratory rate of 30 cycles/ minute. Right upper chest was dull to percussion and bronchial breathing with crepitations were present on right upper zone. Chest radiograph showed an area of uniform opacity in the right upper zone.

He was started on cefuroxime (750 mg tds IV) and clarithromycin (500mg bd IV) but fever failed to show any response after 7 days of antibiotics.

8.1 What further questions are relevant to find out the cause of his illness?

(40 marks)

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8.2 List **four** investigations that would help to find out the cause of his illness and state the expected findings.

(40 marks)

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8.3 Give **two** possible explanations for this patient's non-response to therapy.

(20 marks)

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