



2024

EDEN UNIVERSITY
SCHOOL OF MEDICINE

DEPARTMENT OF MEDICINE AND CLINICAL SCIENCES

BACHELOR OF MEDICINE AND BACHELOR OF SURGERY

INTERNAL MEDICINE (5,2)
(MED 510)

First Attempt EXAMINATION - PAPER II

DURATION 2 HOURS

November 12, 2024

STUDENT ID No.	
NRC No. /PASSPORT No.	189293/55/1
EXAMINATION VENUE	KARUN F4

INSTRUCTIONS:

SECTION A = Multiple choice questions

1. Choose one best answer from the questions (A-E) attached to one stem statement.
2. There are 100 questions
3. Time allowed = 3 hours
4. Do not forget to write your computer number on each paper.

1. A 42-year-old female teacher presents to your clinic because of persistent palpitations for 3 months. There is no cough, dyspnea or orthopnea associated. She, however reports feeling extreme fatigue and feels very hot most of the time. Despite eating all the meals in a day, she has lost 5kg in 2 months and sometimes passes loose stool, especially in the morning. She doesn't smoke or drink alcohol. On physical exam, she had tachycardia, a bounding pulse and smooth non-tender goiter, no lymphadenopathy. The doctor also noted that she had proptosis.

Her lab results for FBC, Kidney function and liver function are normal. CRP is also within the normal range.

Hyperthyroidism

- What is the most likely Diagnosis? (2 marks)
 - What is the pathophysiology of the condition in 'a' above (4 marks)
 - List differential diagnosis (4 marks)
 - Mention tests that are done to confirm the diagnosis and the expected results (4 marks)
 - List complications of this condition (4 marks)
 - Name the medicines that are used to treat this condition (2 mark)
2. A 46-year-old man is admitted to the ER for vomiting large volumes of blood for 1 day. He has not complained of abdominal pain but reports that he had noticed a gradual increase in the size of his abdomen during the past month. Also, during the same period, he had been told by his wife that his eyes were yellow. He denies diarrhea or itchiness of his skin. He has been drinking alcohol for over 20 years, mainly spirits. On examination, he was fully conscious, jaundiced and pale. BP 87/60, PR 120/min and RR 20b/min. He had a distended abdomen with splenomegaly ascites and mild pedal edema.

Lab results: WBC 3.8×10^6 , RBC 3.8×10^6 , Hb 6.5g/dL, MCV 102, Platelets 118

ALT 75 IU AST 110, Total Bilirubin 67, INR 2.6, HBsAg-negative, HIV-negative

- What is the medical term for vomiting blood? 1 mark
 - What is the full diagnosis of the patient above? 4 marks
 - What is the differential diagnosis of the causes of upper GI bleeding? 3 marks
 - List 8 other signs you would look for when examining this patient. 4 marks
 - 2 days later, you are called to review the patient because he has become restless.
 - What complication could he have developed? 2 marks
 - List the precipitants of this complication. 4 marks
 - Mention 2 treatment options for the underlying condition that the patient above has. 2 marks
3. Jane, 43 yrs. Old mother of one has been referred to your hospital for evaluation of severe headache. The headache has been increasing in intensity since it started 3 weeks ago. She complains of nausea and vomiting, especially in the morning, but no confusion or seizures. She tested HIV positive for 2 years. Ago and was commenced on ART. In the past 3 months, she has missed some doses due to her busy work schedule. She doesn't drink or smoke.
- On examination, she is fully conscious but in pain, with no nuchal rigidity apyrexial. Neurological and other systemic exams is unremarkable.
- LAB results: FBC: Hb 8.8g/dL, MCV 88, PLT 223;
- CD4 count 93cells/uL, HIV viral load 9500 copies/ml, RPR positive, Urea 3.5mmol/L, Creatinine 85umol/L, AST 48iu/L, ALT 36 iu/L

- Comment on the results above and their significance 4 marks

- b. What's the most likely cause of the headache? 2 marks
 - c. List 2 differential diagnosis of Headache in patient above? 2 marks
 - d. List important investigations to confirm the diagnosis. 2 marks
 - e. Mention the medication used to treat the most likely diagnosis and the main side effects to be monitored for. 4 marks
 - f. Define advanced HIV disease 2 marks
 - g. Mention the first line ARV (and the alternative option) used in Zambia 2 marks
 - h. What is Urine LAM and what's the indication? 2 marks
4. **Judith, a 34-year-old housewife, presents to the ER due to worsening breathlessness. She feels tired easily while doing daily chores and noticed her feet swell in the evening. She has a cough and noticed hemoptysis 2 days ago. She has no fever, chest pain or night sweats. On examination, the doctor noted that she had a hoarse voice, redness on her cheeks, engorged neck veins and bilateral crepitations posteriorly. Auscultation of the heart revealed a diastolic rumble loudest at the apex. She also had bilateral pitting edema.**

Blood tests FBC, kidney function tests and liver function tests are normal. HIV is negative

- a. What is the most likely diagnosis? 4 marks
- b. What could be the cause of the cough and hoarse voice? 2 marks
- c. List cardinal investigations for this patient 6 marks
- d. What complications can arise from her condition 4 marks
- e. What are the principals of treatment of heart failure? 4 marks

5. A 25-year-old male patient was admitted to the Emergency Room with easy fatigability. His past medical history is remarkable for tooth extraction two weeks ago. He also reports history of fever on and off. On examination his temperature is 37.8°C and BP 120/80 mmHg. He is pale with tinge of jaundice. His chest is clear and he has pansystolic murmur at the apex. Abdominal examination reveals splenomegaly. Urinalysis shows red blood cells in urine.
- What is your working diagnosis?
 - What investigations would you do to confirm it?
 - What criteria are used to diagnose this condition?
 - Outline your management plan for this patient. Please, fully manage him if all the facilities are available.
6. A 30-year-old male patient was admitted to the Emergency Room with history of severe epigastric pain. His past medical history is unremarkable. He reports to have just been fine; in fact, he was from having a copious meal with some wine with his friends. You examined him and found a normal temperature but low blood pressure of 86/55 mmHg. He is conscious but in severe pain.
- What is your working diagnosis?
 - What investigations would you do to confirm it?
 - How would you classify this condition?
 - Discuss the pathophysiology and common causes.
 - Outline your management plan for this patient. Please, fully manage him if all the facilities are available.
7. A 57-year-old business executive was brought to the emergency room unconscious. He had been feeling generally unwell for the past two weeks prior to presentation. His wife noticed that his food and liquid intake had been reducing. HIV test done two months earlier was negative. He had history of hypertension but not diabetes. On examination, he is obviously obese with a Glasgow coma scale of 7/15. His neck is stiff and he is mildly pale and had features of severe meningism.
- Vitals were as follows;
 BP 100/60mmHg, Temp 37°C , Pulse 120/min thread, Respiratory rate 32/min.
 Available laboratory results were as follows;
 K^{+} : 4.9 mmol/l
 Na^{+} : 155mmol/l
 Urea: 23 mmol/l
 Creatinine: 121 mmol/l
 Blood sugar: 56mmol/l
- What is your working diagnosis?
 - What investigations would you do to confirm it?
 - How would you classify this condition?
 - Discuss the pathophysiology and common causes.
 - Outline your management plan for this patient. Please, fully manage him if all the facilities are available.
8. A 30-year-old female patient presents with joint pains, fever and cough. Duration of symptoms is about a week. On examination, the patient is tachypnoeic and has coarse crepitations in the right lower lobe. Patient is a known smoker and takes wine on occasions. The Intern attending to her ask you to conduct further evaluation.
- What additional information would you like to get?
 - What aspects should one consider when making a differential diagnosis?
 - List some common causes?
 - Discuss the management