



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE - 20TH MAY 2013
MEDICINE PAPER 1

(1.00 - 4.00^{pm}) 3 hours

Old format

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

PART A

1. A 40-year-old male presents with fever, breathlessness and left-sided chest pain of one week duration. He has lost 5 kg of weight in the preceding month. Clinical examination reveals reduced chest expansion, stony dull percussion note with reduced breath sounds over the left lower chest.
 - 1.1 What is the most likely clinical diagnosis? (10 marks)
 - 1.2 Name TWO probable underlying causes for the answer in 1.1. (20 marks)
 - 1.3 Name TWO physical signs if present, that would support each one of the causes mentioned in 1.2. (20 marks)
 - 1.4 List TWO investigations that would strongly support or confirm each of the causes given in 1.2 and discuss the expected findings for each. (50 marks)

2. A 50-year-old female presents to her family doctor with a lipid profile report which shows the following results; Total cholesterol 280mg/dL, LDL cholesterol 170mg/dL, serum triglycerides 125mg/dL HDL cholesterol 55mg/dL. She gives a history of lethargy, constipation and weight gain.
 - 2.1 What is the most likely diagnosis? (10 marks)
 - 2.2 Name ONE test that would confirm your diagnosis? (10 marks)
 - 2.3 List FOUR other common manifestations of this condition. (20 marks)
 - 2.4 List FOUR underlying causes for the condition. (20 marks)
 - 2.5 Describe briefly the treatment of this patient and how you plan to follow her up. (40 marks)

PART B

3. A 25-year-old soldier from a camp at Anuradhapura was admitted with shortness of breath and yellowish discoloration of eyes for one week duration. He had two similar episodes in the last two years which spontaneously settled after some time. On examination, he was afebrile, pale and conjunctiva was icteric. On examination of the abdomen, firm spleen was palpable three centimeters below the left costal margin. Following investigations were available on admission.

Hb 6.5 mg/dL, PCV 24, WBC 9800 / mm³ with normal differential count, platelet count 200x10⁹/L, serum bilirubin 3mg/dL, urine bile nil, reticulocyte count 5%

 - 3.1 Give FOUR differential diagnoses. (40 marks)
 - 3.2 Give FOUR other important features that you would elicit in the history to differentiate between the above differential diagnoses. (20 marks)
 - 3.3 Give FIVE appropriate laboratory tests that would help in the differential diagnosis along with the expected results. (40 marks)

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4. A previously healthy, 18-year-old boy is admitted with recent onset difficulty in breathing and tiredness. Examination on admission showed mild peri-orbital and ankle oedema, elevated JVP and blood pressure of 150/90 mmHg. Examination of his heart, lungs, abdomen and nervous systems were unremarkable.

The child was a long-distant runner and he had undergone a medical examination two weeks prior to admission when his name was proposed for a marathon organized by his school. He was declared fit but could not take part in training due to an infected eczema in his right foot.

- 4.1 What is the most likely diagnosis? (10 marks)
- 4.2 List THREE relevant information in his history to support the diagnosis you mentioned above. (10 marks)
- 4.3 List FOUR investigations required to confirm the diagnosis and state the expected findings. (40 marks)
- 4.4 Discuss briefly the steps involved in his medical management. (40 marks)

PART C

5. A 55-year-old male presented with several episodes of hematemesis. On admission he was pale and had a pulse rate of 110/min and blood pressure of 90/60 mmHg.

- 5.1 List THREE causes for this presentation. (30 marks)
- 5.2 Mention ONE specific feature you would elicit in the history of this patient in support of each of the conditions listed in 5.1. (35 marks)
- 5.3 List ONE specific physical sign you would look in the physical examination of this patient in favour of each of the condition listed in 5.1. (35 marks)

6. A 76-year-old man is admitted to the emergency treatment centre complaining of severe chest pain for 2 hours. He complains of shortness of breath and feeling dizzy. He has a history of smoking 20 pack years and has had hypertension for 22 years. He has no history of diabetes or dyslipidaemia.

- 6.1 List FOUR life threatening diagnoses which may cause the chest pain. (20 marks)
- 6.2 Explain how you could use the characteristics of the chest pain to determine the most likely diagnosis. (30 marks)
- 6.3 Explain how you could use the findings of examination of peripheral arterial pulse and the respiratory system to determine the most likely diagnosis. (50 marks)

PART D

7. An 18-year-old school girl from Hikkaduwa was admitted with high fever and headache for eight days duration. She also complained of body aches and anorexia. She complained of poor appetite and had not opened her bowel for two days which she admitted to poor oral intake. Examination revealed temperature of 40.4°C, blood pressure of 110/78 mmHg and 1cm soft splenomegaly. Rest of the examinations was normal.

Investigations done on the day of admission were shown below.

WBC 7600 / mm³ (N – 40%, L – 56%), Hb – 13.4 mg/dL, Platelet count – 25000 / mm³, CRP - 6.4mg/dl (<10mg/dl), chest radiograph – normal, urine full report – normal

- 7.1 List THREE possible differential diagnoses for her presentation. (15 marks)
- 7.2 Describe in brief how history and examination help you to differentiate the diagnoses mentioned above. (50 marks)
- 7.3 List FOUR investigations that would support or confirm the differential diagnoses mentioned above. (35 marks)

8. A 26-year-old married female was admitted with sudden onset weakness of face, arm and leg of the left side 30 minutes prior to admission. CT scan of the brain, done within one hour of onset of symptoms was normal.

- 8.1 List FIVE features you would elicit in the history that would help in identifying the etiology for this presentation. (30 marks)
- 8.2 List FIVE physical signs except from those in the nervous system that would help to identify the underlying cause. (30 marks)
- 8.3 List FIVE investigations that would help to confirm and underlying cause. (30 marks)
- 8.4 What specific emergency treatment would you consider for this patient to improve the disability? (10 marks)

PART E

- 9.1 List FIVE clinical features ^{of} alcohol withdrawal state. (20 marks)
- 9.2 List TWO complications of untreated alcohol withdrawal. (20 marks)
- 9.3 Briefly outline the management of a patient presenting with alcohol withdrawal state. (60 marks)

10. A 30-year-old female was brought to the psychiatry clinic by her husband as she has started to quarrel with the neighbors claiming that they are adding poison to her well. This problem started about two months ago and continued despite repeated assurances by the PHI that water is clean. She has stopped drinking water and even refused meals cooked at home for last three days. On examination, she said "they get to know everything about me and even now they know I'm in the hospital. They will even poison the water here."

- 10.1 What is the most probable diagnosis? (10 marks)
- 10.2 Support your diagnosis with available information. (20 marks)
- 10.3 Mention FIVE other symptoms/signs you would expect to elicit in this patient. (20 marks)
- 10.4 Briefly outline the management of this patient. (50 marks)

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to the Psychiatrist
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