



FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE – NOVEMBER 2017
MEDICINE PAPER 1

November 20th 2017

(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.**

1. A 65-yr-old man is admitted to hospital with progressive difficulty in breathing for two weeks. He attends a medical clinic at a local hospital for hypertension and dyslipidaemia. His medications include atenolol 50 mg bd, atorvastatin 10 mg daily and HCT 25 mg daily.

Examination on admission shows an average built man with a respiratory rate of 30 cycles per minute, Blood pressure of 158/100 mmHg and pulse of 72 /bpm. The cardiac apex is felt at the 5th intercostal space, 3cm laterally displaced. There is a pan-systolic murmur at the apical area. Fine crepitations are heard over lung bases bilaterally.

1.1 List two (02) acute medical problems seen in this patient. (10 marks)

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1.2 List the cardiac abnormalities seen in this patient and provide a possible explanation for those abnormalities. (30 marks)

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1.3 Describe the steps involved in the acute management of this patient. (30 marks)

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1.4 List four (04) medications that are indicated in the long term management of this patient and briefly explain the pharmacological basis of their use. (30 marks)

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2. A 22-year-old school boy is admitted to the hospital with a four-day history of fever, headache and vomiting. On admission he was febrile, pulse is 100/bpm and blood pressure is 100/75 mmHg. Diminished breath sounds were noted at the mid and lower zones of lung on the right side. The right hypochondrium was tender.

Investigations:

Full blood count : Hb- 16.1g/dL, PCV 50, white blood cells- 1500/mm³

Platelets- 19,000/mm³

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

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2.2 Give a brief explanation for the abnormal physical signs recorded on chest and abdomen on admission to the hospital. (20 marks)

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2.3 Briefly outline the management of this patient. (40 marks)

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Four hours after admission, the patient deteriorated. Examination revealed cold peripheries with a blood pressure of 80/60 mmHg.

2.4 List **two** (02) possible reasons for his deterioration. (10 marks)

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2.5 How would you differentiate between the above two reasons clinically and by investigations? (20 marks)

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3. A 23-year-old male presented with recurrent vomiting and drowsiness for three days. He has been unwell for two weeks with anorexia, nausea and weight loss. Examination revealed an ill looking, wasted man with a BMI of 19. The patient is drowsy, GCS is 11/15. The blood pressure is 90 /60 mmHg, respiratory rate is 40/min. Urine ward test: Albumin +, Sugar +++

3.1 What is the most likely diagnosis? (20 marks)

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3.2 Mention five (05) investigations that are indicated to arrive at a diagnosis and to manage this patient giving the expected results. (30 marks)

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4. 35-year-old male presented with fever and productive cough with copious, yellow coloured sputum and haemoptysis of one-week duration. During the past five years, he has had several hospital admissions and received outpatient treatment for similar symptoms.

Physical examination revealed a febrile, patient with pallor, mild dyspnoea and bilateral finger clubbing. There were bilateral coarse crepitations over the both lung bases.

4.1 What is the clinical diagnosis? (10 marks)

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4.2 List four (04) abnormalities that you would expect to find in the chest radiograph of this patient. (20 marks)

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4.3 List five (05) investigations (other than a chest radiograph) that you would request in this patient and mention how each of the investigation helps the management of the diagnosis mentioned in 4.1. (25 marks)

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4.4 What antibiotic/s would you consider for this patient on admission? (10 marks)

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4.5 Give reasons for your antibiotic choice. (15 marks)

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4.6 Mention **one** life threatening complication and two chronic complications of the condition you mentioned in 4.1. (20 marks)

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5. A 35-year-old previously healthy married woman is admitted with sudden onset face-arm-leg weakness on the left side noticed 6 hours before admission. She has been previously healthy and has not taken any medication except being on oral contraceptives. On examination she is conscious and rational. The blood pressure is 120/70 mmHg. The pulse is regular with a rate of 60/bpm. There is weakness of face arm leg on the left side. The swallowing is normal.

5.1 What is the most likely diagnosis? (5 marks)

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5.2 List **three (03)** investigations that you would arrange immediately. (15 marks)

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5.3 How would you manage this patient if the results of the investigations you mentioned in 5.2 are normal? (40 marks)

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5.4 Discuss how you would investigate this patient further, to find the cause of her illness. (40 marks)

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6 Part A

A 16-year-old girl presented with tiredness for three months. She has had poor exercise tolerance since childhood. Her father has mild anaemia but is stable and well. Examination revealed an averagely built girl with moderate pallor, mild icterus and a firm spleen felt just below the costal margin.

Hb 9.0 g/dL, WBC 8400 /mm³, Platelets 250,000/mm³

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

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6.2 Give one differential diagnosis. (10 marks)

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6.3 Give five (05) investigations to confirm the diagnosis giving expected results (50 marks)

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Part B

6.3 List the precautions that are carried out before and after a splenectomy. (30 marks)

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7. A 47-year-old male is admitted complaining of fever for five days. He has no respiratory or urinary symptoms. On examination sclerae are icteric.

7.1 List four (04) differential diagnosis. (20 marks)

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7.2 Mention two (02) clinical features that you would look for to support each of the above diagnoses (8 in total) (30 marks)

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7.3 List four (04) investigations to confirm each of the above diagnoses stating expected findings. (30 marks)

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7.4 Briefly describe the management of one of the above conditions. (20 marks)

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8 A 39-year-old male is admitted complaining of dark coloured urine for one day. He has no fever, dysuria or abdominal pain. He had been well except for a recent upper respiratory tract infection. He has smoked 10 cigarettes a day for the past 10 years. On examination his blood pressure was noted to be 145/95 mmHg.

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

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8.2 List three (03) differential diagnoses.

(15 marks)

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8.3 Give one clinical feature each to support the above four diagnoses (4 in total)

(20 marks)

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8.4 Mention four (04) investigations that are indicated and give the expected findings to support each of the above diagnoses.

(30 marks)

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8.5 Briefly describe the management of condition you mentioned in 8.1.

(25 marks)

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