



**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA
FINAL EXAMINATION FOR MEDICAL DEGREE – 4TH APRIL 2011
MEDICINE PAPER 1**

(1.00 – 4.00 p.m.) 3hours

Answer all 10 questions.

Answer each part in a separate answer book.

PART A

1. A 55 year-old male, who is on treatment for ischemic heart disease presented with progressive breathlessness and ankle swelling of 2 weeks duration. Physical examination revealed orthopnoic male with pale mucous membranes and bilateral pitting ankle oedema. His pulse rate was 110 beats per minute and blood pressure was 170/ 105 mmHg. He had elevated jugular venous pressure of 5 cm and 4 cm tender hepatomegaly.
 - 1.1 What is the diagnosis for this presentation? **(10 marks)**
 - 1.2 List four precipitating factors for the condition you mentioned in 1.1 in this patient. **(30 marks)**
 - 1.3 List four investigations you would request on admission and briefly describe their usefulness in management of this patient. **(40 marks)**
 - 1.4 List four medications you would use in the management. **(20 marks)**

2. A 60 year-old male presented with productive cough for one month and three episodes of hemoptysis and fever with chills for two weeks. Physical examination revealed deviated trachea to right side with bronchial breathing and coarse crepitations over right upper zone.
 - 2.1 List two differential diagnoses. **(20 marks)**
 - 2.2 What additional features in the history and physical examination would help in arriving at a specific diagnosis? **(30 marks)**
 - 2.3 List five investigations you would request in this patient and explain how they are useful in arriving at a specific diagnosis. **(50 marks)**

PART B

3. Explain the pathophysiology of hypercalcaemia in the following situations.
 - 3.1 Primary hyperparathyroidism **(50 marks)**
 - 3.2 Bronchial carcinoma **(50 marks)**

4. A 20 year-old girl presented with painful swelling of the right knee joint for 5 days. She has been working as a sales assistant for past 5 years. On examination she was afebrile and not pale. There were no palpable lymph nodes. Examination of heart, lungs and abdomen were normal. There was a tender swelling of the right knee joint with mild joint effusion. Movements of the right knee joint were restricted.
 - 4.1 List two differential diagnoses to explain her clinical picture. **(20 marks)**
 - 4.2 What information in her history would help you to decide on the exact cause of the illness? **(50 marks)**
 - 4.3 List four investigations that would help in confirming the diagnosis and state the expected findings in the each test. **(30 marks)**

PART C

5. A 25 year-old soldier was admitted with yellowish discoloration of eyes of one week duration. He had severe anorexia and nausea for one week. His urine was dark in colour but the volume was normal. On examination, the temperature was 38° C, conjunctiva was deeply icteric. He was confused, but there was no neck stiffness or focal neurological signs. On examination of the abdomen, mild right hypochondrial tenderness was present.
 - 5.1 What is the most likely diagnosis? **(10 marks)**
 - 5.2 Give one differential diagnosis. **(10 marks)**
 - 5.3 Give five appropriate laboratory tests to support / confirm the diagnosis. **(40 marks)**
 - 5.4 What measures would you plan as a medical officer to prevent development of such illness in the community? **(40 marks)**

Examination revealed peripheral and postural tachycardia. Blood pressure 160/90 mmHg, jugular venous pressure was normal. Rest of the physical examination was normal.

Investigations- FBS- 5.0 mmol/L, UFR- pus cells 2-5/hpf, RBC 10/hpf, granular casts 2-3, Albumin +++, ECG- normal, Chest radiograph - bilateral small pleural effusions.

- 6.1 What is the diagnosis? (10 marks)
- 6.2 List six further investigations you would arrange for this patient giving expected results in each. (60 marks)
- 6.3 What clinical and laboratory parameters would you monitor daily in order to assess the response to therapy? (30 marks)

PART D

7. A 52 year-old male is admitted with the complaint of tiredness for one month. Results of haematological investigations are as follows.

WBC 5200 / mm³ Haemoglobin 8.5 g/dL, MCH 30 pg, MCV 102 fL, Platelets 160,000/mm³

- 7.1 List four causes for the above haematological abnormalities. (20 marks)
 - 7.2 What features in the history and physical examination would help in differentiating the conditions mentioned in 7.1? (60 marks)
 - 7.3 List one investigation each to confirm the conditions mentioned in 7.1. (20 marks)
8. A 62 year-old man presented with recent onset of confusion associated with lethargy for 5 days. He had several episodes of vomiting and diarrhoea before the onset of confusion. He usually consumes half bottle arrack per day for last several years. The examination revealed GCS of 10 with no fever or neck stiffness. He had horizontal nystagmus in both eyes with lateral rectus palsy and positive Babinski's sign on the right side.

- 8.1 List two differential diagnoses and mention three clinical features to support each of them. (50 marks)
- 8.2 List four investigations and describe their usefulness in the management of this patient within the first 24 hours. (50 marks)

PART E

9. A 30 year-old single female was brought to the clinic by her sister complaining that she has stopped talking with the family members for the last one month. During last week she stopped eating meals cooked at home. On further inquiry patient says that she is being used for a research conducted by the Arthur C Clerk Centre and her family members are part of that team. She says "My family members come to know what I think and inform that team" "my life is in danger," "I don't trust them" "I'm not mad."
 - 9.1 What is the most probable diagnosis? Support your diagnosis with available information. (20 marks)
 - 9.2 Mention five other symptoms or signs you would look for in this patient to confirm your diagnosis. (20 marks)
 - 9.3 In which setting are you going to manage this patient? Justify your decision giving reasons. (15 marks)
 - 9.4 Describe i) Acute (15 marks)
ii) Long term management of this patient. (30 marks)
10. A 45 year-old bank manager came to psychiatry outpatient service requesting a medical cover his absence from work over the last two weeks. Patient claimed that he had frightening experiences of seeing people coming to kill him and seeing snakes everywhere. Patient's wife revealed that patient had been drinking alcohol heavily over last three weeks.
 - 10.1 What are the important clinical features that you would look for in this patient's history and examination to arrive at a diagnosis? (50 marks)
 - 10.2 Describe the management of this patient. (50 marks)