



**FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA**  
**FINAL EXAMINATION FOR MEDICAL DEGREE – 6<sup>TH</sup> DECEMBER 2010**  
**MEDICINE PAPER 1**

**Answer all 10 questions.**  
**Answer each part in a separate answer book.**

**(1.00-4.00 pm) 3 hours**

**Part A**

1. A 65 year old diabetic woman is admitted with shortness of breath and central chest pain of three hours duration. Examination revealed respiratory rate of 34/min, blood pressure of 210/140 mm Hg, pulse 65 min. and crepitations in both lung bases. Capillary blood sugar on admission was 125mg/dL, and ECG showed 3mm ST elevations in V1-V6.
  - 1.1 What is the most likely diagnosis? (10 marks)
  - 1.2 List three drugs you will start immediately after admission and explain briefly the reasons for selecting them? (30 marks)
  - 1.3 List three other investigations you will request on admission and state the reasons for requesting them. (60marks)
  
2. A 65 year old hotelier from Hikkaduwa was admitted with right sided chest pain, fever and cough of 10 days duration. He was a smoker and consumed alcohol daily for the last 5 years. Examination showed a middle age, febrile man with mild dyspnoea. Right upper chest was dull to percussion and auscultation showed an area of bronchial breathing with crepitations. Chest radiograph showed an area of uniform opacity in the right middle zone. He was started on cefuroxime (750 mg tds IV) and clarythromycin (500mg bd IV) but fever failed to show any response after 7 days of antibiotics.
  - 2.1 What further information would you seek in his history to find out the cause of his illness? (40 marks)
  - 2.2 List four investigations that would help to find out the cause of his illness and state the expected findings? (40 marks)
  - 2.3 What would you tell his wife (an English teacher) who is anxious to know every thing about her husband? (20 marks)

**PART B**

3. A 26 year old female presented with pain and swelling of multiple joints of 2 months duration.
  - 3.1 List five features you would elicit in this patient's history and physical examination in support of the diagnosis of rheumatoid arthritis? (30 marks)
  - 3.2 List four investigations you would request in this patient to support the diagnosis of rheumatoid arthritis and briefly describe the expected findings in each of the investigations. (30 marks)
  - 3.3 List three medications you would select to treat this patient to retard the progression of disease once the diagnosis of rheumatoid arthritis is confirmed. Briefly describe the precautions you take in prescribing one of them. (40 marks)
  
4. Enumerate one therapeutic agent each you would use in the management of two problems in each of the following patients. Explain your choice in each situation. Briefly describe the non pharmacological measures and laboratory tests necessary to monitor the treated metabolic abnormalities during the follow-up.
  - 4.1 A 45 year old asymptomatic bank manager with a BMI of 28 kg/m<sup>2</sup> who was found to have fasting blood glucose of 220 mg/dL and fasting lipid profile with total cholesterol 245 mg/dL, LDL cholesterol 176mg/dL, triglycerides 187 mg/dL, and HDL cholesterol 42 mg/dL (50 marks)
  - 4.2 A 23 year old female who presented with palpitations, weight loss for one month and found to have serum TSH of 0.001 IU/L (normal 0.4 – 4 IU/L) and sinus tachycardia on ECG. (50 marks)

### PART C

5. A 35 year old man presented with double vision and difficulty in rising up from seated position which is worse in the evening and after exercise.
- 5.1 What is the most likely diagnosis? (20 marks)
  - 5.2 List three investigations you would perform to confirm the diagnosis. (15 marks)
  - 5.3 List 3 therapeutic interventions with different mechanisms of action you would recommend in the management of this patient. (15 marks)
  - 5.4 Briefly mention the mechanism of action in each of the interventions you listed (50 marks)
6. A 30 year old male is admitted with fatigue and loss of weight for three months. He had no fever, cough or chest pain. His appetite, urine and bowel habits were normal. On examination he was average built, afebrile, mucosae were grossly pale. Mild conjunctival icterus was present. Few firm enlarge anterior cervical nodes were present on the left side. Respiratory, cardiovascular and nervous system were normal. Abdominal examination revealed a 3 cm firm spleen. The results of the initial investigations were as follows.
- Hb - 6g/dL PCV - 25 WBC 5600/mm<sup>3</sup> Neutrophils 35%, Lymphocytes 62%, Eosinophils 3%  
Platelet count- 140,000/mm<sup>3</sup>  
UFR- Sugar- Nil, Albumin -Nil, Urobilinogen - increased, Bile -Nil, deposits- Nil  
Tele chest- Normal lung fields with mediastinal widening
- 6.1 What is the most likely diagnosis? (20 marks)
  - 6.2 Give one differential diagnosis. (10 marks)
  - 6.3 Give two mechanisms to explain the development of anemia in this patient. (10 marks)
  - 6.4 Give six further investigations to support and confirm the diagnosis giving the expected results. (60 marks)

### PART D

7. A 50 year old male is admitted with a history of fever for three days. He was complaining of headache, muscle and joint pains for the above period. There was no cough, sore throat or diarrhea. On examination he appeared flushed. Pulse 100/min. BP 100/70. Chest was clear on auscultation. There was no neck stiffness. Abdominal examination revealed mild generalized diffuse tenderness.
- Investigations**  
WBC 12,000/mm<sup>3</sup> Neutrophils 75%, Lymphocytes 25%, Platelet count 150,000/mm<sup>3</sup> ALT- 55 IU/L  
Urine bile - positive, Urine deposits- 10-15 RBC, 10 pus cells/high power field
- 7.1 What is the most likely diagnosis? (20 Marks)
  - 7.2 Give two further questions that are relevant to be elicited in the history (10 marks)
  - 7.3 Give four further appropriate investigations (20 marks)
  - 7.4 Enumerate five steps in the management of this patient (50 marks)
8. A 53 year old lady comes to you complaining of lethargy, anorexia and swelling of both ankles for 3 months. She was icteric and abdominal examination revealed moderate ascites with a 2cm splenomegaly.
- 8.1 What is the most likely diagnosis? (10 marks)
  - 8.2 List six clinical features (other than listed above) you would elicit to support the above diagnosis. (30 marks)
  - 8.3 List six investigations useful in determining the aetiology of the above diagnosis. (30 marks)
  - 8.4 List six therapeutic measures useful in the management. (30 marks)

### PART E

9. A 30 year old single female planning to get married, presented with increased activity, overspending and hostility towards family members for one week duration. On further inquiry father said that she has had two similar episodes in the past and has been on treatment which she has stopped about two weeks ago. On admission she has assaulted staff members and her father. Mental state examination revealed irritability, hostility towards father and pressure of speech. She said that she is the daughter of the President and that she can fire all the doctors with just one phone call to the President.
- 9.1 What is the most probable diagnosis? (10 marks)
  - 9.2 Mention other details you would elicit from the history which would be important in the management. (20 marks)
  - 9.3 Describe the management on admission. (20 marks)
  - 9.4 Describe the long term management. (50 marks)
10. A 45 year old male was referred to psychiatry clinic from a medical ward for repeated admissions with chest pain. He was investigated in detail at cardiology unit recently and found to have no physical illness.
- 10.1 Give two possible psychiatric diagnoses for the above presentation. (20 marks)
  - 10.2 Describe clinical features you would look for in the above patient to confirm each of the conditions you have mentioned in 10.1 (40 marks)
  - 10.3 Describe the management of one of the conditions mentioned in 10.1 (40 marks)