

Faculty of Medicine  
University of Ruhuna  
Final Examination for Medical Degrees – June 2003

Medicine Paper I  
30<sup>th</sup> June 2003, 0900 – 1200 hours

**Answer all TEN questions**  
**Answer each part in a separate book**

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**Part A**

1. A 50 year old businessman who had smoked 10 cigarettes daily over a 20 year period was seen by his GP for cough, wheezing and breathlessness of two months duration. He was taking atenolol 50mg daily for hypertension. Although the GP treated him with bronchodilators the patient did not improve.

1.1 Give FIVE possible explanations for lack of response to treatment. (50 marks)

1.2 Indicate appropriate therapeutic steps that you would take in each of the situations that you have mentioned 1.1. (50 marks)

2. A 65 year old patient who had a history of ischaemic heart disease was admitted to hospital with a history of sudden collapse. He had cold extremities with a pulse rate of 150 per minute, which was regular, and a blood pressure of 80/50 mm of Hg. The rest of the physical examination was normal.

2.1 Give THREE likely causes for his collapse. (30 marks)

2.2 How would you manage this patient? (70 marks)

**Part B**

3. Explain the basis of the following therapeutic measures:

3.1 The long-term pharmacological management of portal hypertension with beta-blockers and nitrates. (50 marks)

3.2 Use of lactulose and neomycin in the management of hepatic encephalopathy. (50 marks)

4. A 35 year old male was admitted with a history of fever of 5 days duration. Clinical examination revealed the following positive features: Temperature 100.4° F, pulse 90 beats/min, blood pressure 100/70 mmHg, clear lungs, abdomen – liver just palpable, spleen not palpable, nervous system- normal.

ESR	82 mm/hr	
Haemoglobin	13 g/dl	
White cell count	14,600 N 80 L 8E 2	
Platelet count	180,000/mm <sup>3</sup>	
Serum bilirubin	30	(3-17 μmol/l)
Serum aspartate transaminase	68	(11-55 iu/l)
Serum alanine transaminase	64	(11-55 iu/l)
Serum alkaline phosphatase	560	(11-280 μmol)
Serum protein	70 g/l	(60-83 g/l)
Serum albumin	46 g/l	(35-53g/l)
Prothrombin time	12 seconds	Control 11 seconds
Blood urea	56 mg/dL	
Serum sodium	140 mmol/l	
Serum potassium	4.1 mmol/l	
Urinalysis	sugar – negative, albumin- 1+, 3-4 pus cells, 5-6 red cells	

4.1 What is the most likely diagnosis? (25 marks)

4.2 Give ONE other possibility. (15 marks)

4.3 Name TWO life-threatening complications of the condition mentioned in 4.1. (20 marks)

4.4 Give TWO therapeutic options in the specific treatment of this patient. (20 marks)

4.5 Mention TWO ways in which the patient would have developed this condition. (20 marks)

### Part C

5. Following results were found during the initial investigations of a 28 year old female presenting with pallor. Hb: 8 g/dL, MCV: 70 fl, MCHC: 22 g/dL, MCH: 28 pg White cell count and differential count: normal.
- 5.1 What is the type of anaemia seen in this patient? (10 marks)  
5.2 List THREE possible causes for this type of anaemia. (30 marks)  
5.3 What information would you obtain in her history and examination to find out the cause of anaemia? (30 marks)  
5.4 List investigations that would confirm each condition you mentioned in 5.2 (30 marks).
6. How would the laboratory examination of urine help in the investigation of a 40 year old male who is found to have high blood pressure? Discuss the possible abnormalities and their interpretation. (100 marks)

### Part D

7. A 30 year old woman presented with loss of 8 kilograms over a period of 3 months, palpitations and increased sweating. Her appetite was good and the routine urine analysis was normal.
- 7.1 Name the most likely diagnosis. (10 marks)  
7.2 List 5 physical signs you would expect to find in this patient in support of the condition you mentioned in 7.1. (15 marks)  
7.3 What is the most useful laboratory test to confirm the condition you mentioned in 7.1. (10 marks)  
7.4 Describe briefly the different methods of management of this condition, giving the advantages and disadvantages in each of them. (65 marks)

### Part E

8. A 50-year-old obese smoker with hypertension and diabetes mellitus presented with frequent attacks of numbness and weakness of the left lower limb. Each attack lasted for about 2 minutes and he recovered fully.
- 8.1 What is the most likely diagnosis? (20 marks)  
8.2 List the drugs you would select to treat this patient giving your reasons for selecting each of them. (50 marks)  
8.3 What non-pharmacological measures would you consider in this patient? (30 marks)

### Part F

9. A 25 year old man was brought to the hospital by his supervising officer. He had been noticed to be thoughtful at work and has started to accuse some of his co-workers of planning a conspiracy against him. He also accused them of spreading stories about him in his village. He claimed that he heard people in the village passing insulting remarks at him and saw some people in vans spying on him. He demands a CID investigation.
- 9.1 What is the most likely diagnosis? (20 marks)  
9.2 State TEN other clinical features, which could occur in this condition. (50 marks)  
9.3 Discuss briefly the immediate management of this patient. (15 marks)  
9.4 What are the important factors you have to consider when you plan long term management? (15 marks)
10. Name and describe a method of psychotherapy you would carry out on  
10.1 an individual. (50 marks)  
10.2 a group. (50 marks)

