



**UNIVERSITY OF RUHUNA - FACULTY OF ALLIED HEALTH SCIENCES**

**DEPARTMENT OF PHARMACY**

**THIRD BPHARM PART II EXAMINATION – JUNE 2023**

**PH 3223 PHARMACOTHERAPEUTICS – SEQ PAPER**

**TIME: TWO HOURS**

**INSTRUCTIONS**

- There are **four** questions in this SEQ paper.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

1.

1.1.

- 1.1.1. Give a brief description on osteoporosis. **(10 marks)**
- 1.1.2. List **five** risk factors for osteoporosis. **(15 marks)**
- 1.1.3. What advice would you give to a patient who just had a prescription containing oral bisphosphonates? **(25 marks)**

1.2.

- 1.2.1. List **five** common symptoms of mania. **(15 marks)**
- 1.2.2. Name **two** typical (first generation) and **two** atypical (second generation) antipsychotics used in treating mania. **(10 marks)**
- 1.2.3. A 34-year-old male patient presented to the Psychiatry unit with the symptoms of acute mania. He is on fluoxetine 40 mg in the morning and lithium carbonate 500 mg at night. His serum lithium level was 0.3 mEq/L (reference range: 0.6 mEq/L - 1.2 mEq/L). As the clinical pharmacist, write **two** changes in medications that you would suggest to the treating team to improve the condition. **(10 marks)**
- 1.2.4. Name **five** toxic effects of lithium carbonate. **(15 marks)**

2.

- 2.1. A 25-year-old female presented to the hospital pharmacy with a prescription given by the endocrinology clinic. She said she was newly diagnosed as having “thyroxine hormone excess” after presenting with weight loss. Her prescription contained carbimazole and propranolol.
- 2.1.1. List **two** other clinical features this patient could have. **(10 marks)**
- 2.1.2. State **one** possible etiology for her thyrotoxicosis. **(04 marks)**



- 2.1.3. State **two** investigations that would have been helpful in the diagnosis of the condition. (06 marks)
- 2.1.4. State **two** important advices you would give to this patient who was newly started on carbimazole. (20 marks)
- 2.1.5. Briefly explain the reason for starting propranolol on this patient. (10 marks)
- 2.2. A 55-year-old state worker presented to hospital with cough and low-grade evening pyrexia for 3 weeks. He also complained of one bout of haemoptysis. He has taken treatment from several general practitioners, but the condition has not improved.
- 2.2.1. What is the most likely diagnosis in this patient? (05 marks)
- 2.2.2. Briefly outline the drug treatment of the condition you mentioned in 2.2.1. (15 marks)
- 2.2.3. State **two** side effects associated with each drug you mentioned in 2.2.2. (20 marks)
- 2.2.4. State **two** measures that could be taken to minimize the occurrence of side effects stated in 2.2.3. (10 marks)
- 3.
- 3.1. Explain briefly the principles of drug treatment for hypertension. (50 marks)
- 3.2. List **four** first-line antihypertensive drug classes and state **one** main side effect for each. (20 marks)
- 3.3. List **three** drugs that can be used for hypertensive emergencies and explain briefly the mechanism of action of one of the drugs /drug classes. (30 marks)
- 4.
- 4.1.
- 4.1.1. Briefly write the reason for combining glucose with sodium in ORS. (10 marks)
- 4.1.2. State **three** safety advices you give to a newly diagnosed epilepsy patient. (15 marks)
- 4.1.3. What is the advantage of combining levodopa and carbidopa for the treatment of Parkinson's disease? (15 marks)
- 4.1.4. What's the rationale of using CaCO<sub>3</sub> (Calcium carbonate) in chronic kidney disease (CKD)? (10 marks)



4.2.

4.2.1. State **three** complications of cirrhosis and briefly explain them. (15 marks)

4.2.2. Briefly explain the treatment options for the above-mentioned complications in

4.2.1. (15 marks)

4.3. Briefly explain the standard triple therapy regimen that is recommended for peptic ulcer disease treatment. (20 marks)

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