

THE NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF PHARMACY

PHA 3408: SYSTEMS PHARMACOTHERAPEUTICS II

Supplementary examinations

AUGUST 2023

100 MARKS

3 HRS

Instructions:

- Answer all questions
- There are **five (5) questions**
- Begin every question on a **NEW** page
- The paper consists of **two (2)** pages including the COVER page

QUESTION ONE**30 MARKS**

Discuss in clear details, the pathogenesis (5) of the following disorders, indicating the pathophysiology of the two distinguishing signs and symptoms (4) and long term complication (1) given **10 marks each**

1. Severe Acute asthma
2. Secondary osteoarthritis
3. GERD

QUESTION TWO**30 MARKS**

Outline in clear details, the stepwise (2 per step) drug treatment of the following disorders in terms of drug regimens (1) and formulations (1) **10 marks each**

1. Chronic asthma in adolescents aged 12+ years according to GINA 2019
2. Rheumatoid arthritis in patients at risk of pulmonary TB
3. Peptic ulcer disease confirmed with + *H.pylori* later

QUESTION THREE**15 MARKS**

Outline mechanisms of action of the following drugs in the treatment of the disorders given **3 marks each**

1. Budesonide in chronic asthma
2. Amoxicillin in infective COPD
3. Glucosamine in osteoarthritis
4. Omeprazole in duodenal ulcers
5. Lactulose in constipation

QUESTION FOUR**15 MARKS**

Justify the rationale behind combination of the following drugs in the treatment of the disorders given **3 marks each**

1. Ipratropium/salbutamol in COPD
2. Probenecid and sodium bicarbonate in gouty arthritis
3. Diphenoxylate/atropine in diarrhea
4. Aluminium hydroxide and alginic acid in GERD
5. Zinc oxide and bismuth oxide in haemorrhoids

QUESTION FIVE**10 MARKS**

Discuss and rationalize therapeutic approaches (include drug regimens) you would recommend for patients prescribed the following treatments? **2 marks each**

1. A newly encountered patient complaining of severe chest pain
2. A patient experiencing diarrhea following intake of broad spectrum antibiotics
3. Patient taking budesonide 400mcg/formoterol 12mcg inhaler once daily experiencing more than 2 attacks per week
4. A known gouty arthritic patient experiencing more arthritic pain following allopurinol initiation
5. A known hypertensive patient on HCTZ and ASA newly diagnosed with gout