



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

**DEPARTMENT OF PHARMACY**

**SECOND PHARM PART I EXAMINATION – NOVEMBER 2019**

**PH 2134 PATHOLOGY AND PHARMACOLOGY I (SEQ)**

**TIME: THREE HOURS**

**INSTRUCTIONS**

- There are **six** questions in A, B and C parts of the SEQ paper.
- **Each** part should be answered in a separate booklet.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

**PART A**

1. Thiazide is one of the major groups of diuretics.
- 1.1. Name **four** other groups of diuretics with their site/s of action. (20 marks)
  - 1.2. Write an example to each group you mentioned in 1.1. (10 marks)
  - 1.3. Explain the mechanism of action of thiazide diuretics. (40 marks)
  - 1.4. List **three** therapeutic uses of thiazide diuretics. (15 marks)
  - 1.5. Write **three** adverse effects of thiazide diuretics. (15 marks)

**PART B**

- 2.
- 2.1. Define the term “drug interactions”. (10 marks)
  - 2.2. Briefly explain **two** precautions can be taken to detect and prevent adverse drug reactions. (20 marks)
  - 2.3. Briefly explain the importance of clinical trial registry. (20 marks)
  - 2.4. Indicate the importance of Phase IV clinical trials in the drug development process. (10 marks)
  - 2.5.
    - 2.5.1. Name **three** “*statins*” commonly used in Sri Lanka. (05 marks)
    - 2.5.2. List **two** adverse effects of one of the “*statins*” named in 2.5.1. (10 marks)
    - 2.5.3. Briefly explain **two** mechanisms of actions of “*statins*”. (25 marks)

**PART C**

- 3.
- 3.1. Define the following terms.
    - 3.1.1 Pharmacokinetics. (05 marks)
    - 3.1.2 Pharmacodynamics. (05 marks)
  - 3.2. List the pharmacokinetic changes observed during pregnancy. (30 marks)

3.3. Briefly indicate the principles of prescribing during pregnancy. (20 marks)

3.4. List **five** factors affecting placental drug transfer. (20 marks)

3.5.

3.5.1. Define the term "teratogenicity". (05 marks)

3.5.2. Write **five** drugs which have teratogenic effects. (05 marks)

3.5.3. State **two** teratogenic effects caused by each drug listed in 3.5.2. (10 marks)

4.

4.1. Write an example for each of the following categories of anticholinergics. (20 marks)

4.1.1. M<sub>1</sub>-selective antimuscarinic drugs.

4.1.2. Nonselective antimuscarinic drugs.

4.1.3. Ganglion blockers.

4.1.4. Neuromuscular blockers.

4.2. Briefly describe the mechanism of action of atropine. (20 marks)

4.3. Briefly explain **three** contraindications for anticholinergics. (30 marks)

4.4. Differentiate mechanism of actions of non-depolarizing relaxant neuromuscular blocking drugs in their low doses and high doses. (30 marks)

5.

5.1. What is acute inflammation? (10 marks)

5.2. What are the cardinal features of acute inflammation? (15 marks)

5.3. What are the sequelae of acute inflammation? (20 marks)

5.4. Write short notes on the following.

5.4.1. Suppurative (purulent) inflammation. (15 marks)

5.4.2. Chemical mediators of acute inflammation. (40 marks)

6.

6.1. What is cell injury? (20 marks)

6.2. What are the mechanisms of cellular adaptation? (20 marks)

6.3. Describe morphological patterns of cell injury. (30 marks)

6.4. Briefly explain the mechanism of cell injury via ATP depletion. (30 marks)

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