



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PHARMACY

FOURTH BPHARM PART II EXAMINATION – JUNE 2018

PH 4213 ADVANCED MEDICINAL CHEMISTRY II (SEQ)

TIME: TWO HOURS

INSTRUCTIONS

- Answer **all four (04)** questions in Part A and Part B in separate booklets provided.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

PART A

01.

1.1 State the name and therapeutic properties of a drug belonging to each of the following classes.

- 1.1.1 Biguanide
- 1.1.2 8-Aminoquinoline
- 1.1.3 Sulphone
- 1.1.4 Benzimidazole

(40 marks)

1.2 Describe the distinguishing structural features of the following. Your answer should include appropriate chemical structures.

- 1.2.1 Primaquine and pentaquine
- 1.2.2 Methimazole and carbimazole
- 1.2.3 Tolbutamide and chlorpropamide

(60 marks)

02.

2.1 Classify diuretics based on their chemical nature.

(20 marks)

2.2 Briefly describe the structural features of cardiac glycosides.

(40 marks)

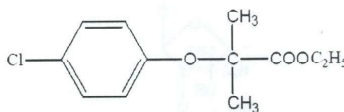
2.3 Explain structure activity relationship of thiazide diuretics.

(40 marks)

03.

3.1 Identify drug A.

(10 marks)



Drug A

3.2 Identify and draw the main pharmacophore for the drug A.

(20 marks)

3.3 Briefly describe the major structural features of drug A which are responsible for its therapeutic activity.

(30 marks)

3.4 Explain structure activity relationship of calcium channel blockers.

(40 marks)

10

PART B

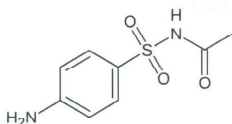
04.

4.1 Give the chemical structure of sulphanilamide and discuss its structure activity relationship (SAR). (20 marks)

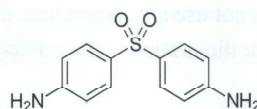
4.2 Sketch the synthesis pathway of Sulphanilamide starting from benzene giving the chemical structures of intermediates. (20 marks)

4.3 Give the correct generic names of the following chemical structures. (20 marks)

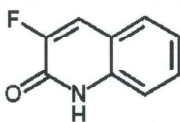
4.3.1



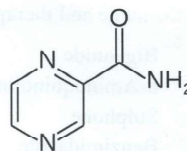
4.3.2



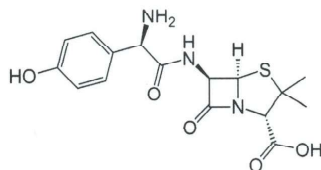
4.3.3



4.3.4

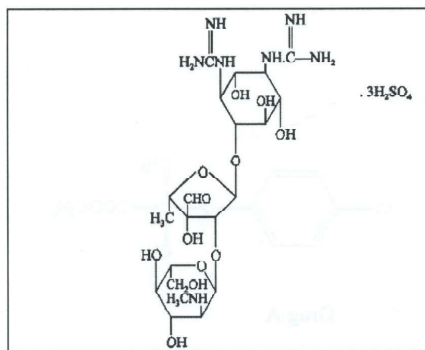


4.3.5



4.4 Explain briefly the structure activity relationship (SAR) of the drug "S" given below.

(20 marks)



Drug "S"

4.5 Discuss the structure activity relationship (SAR) of tetracycline.

(20 marks)

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