(6)

SRI
06 NOV 2019
EXAMINATION DE

THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY
ACADEMIC YEAR 2018/2019 – SEMESTER II
BACHELOR OF PHARMACY HONOURS
FMU6505- MEDICINAL CHEMISTRY- LEVEL 6
FINAL EXAMINATION
DURATION: 03 HOURS

DATE: 06TH NOVEMBER 2019 TIME: 01.30 P.M. – 04.30 P.M.

Part B (20 marks)

01.

1.1 What is "Structure Activity Relationship"? (04 marks)

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1.2 Write four (04) gold compounds used as Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). (04 marks)

I).....

II).....

III).....

IV).....

1.3 Write two natural products used as anti-helminthic. (02 marks)

I).....

II).....

02.

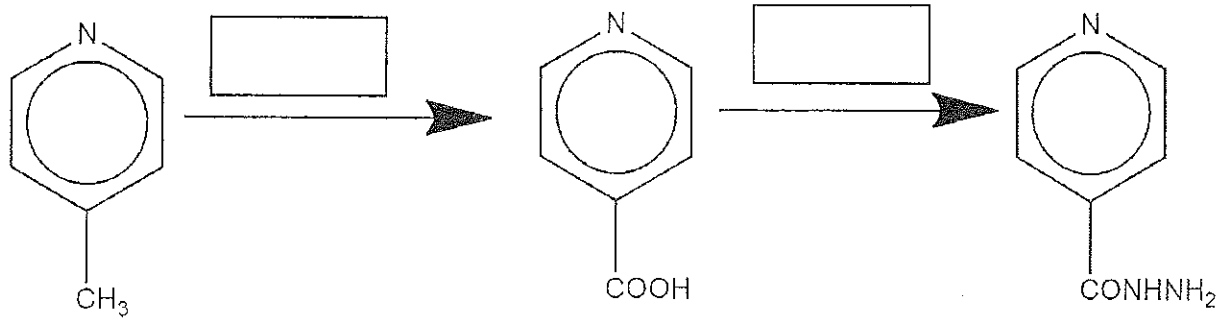
2.1 List the three (03) categories of cyclic basic chain analogues of Histamine1 (H_1) receptor Antagonists. (06 marks)

I).....

II).....

III).....

2.2 Complete the following synthetic pathway. (04 marks)



4-Methyl-pyridine Isonicotinic acid Isoniazid

Part C (60 marks)

01

1.1 Name the two (02) drugs classes used to broadly classify cholinomimetics. (02 marks)

1.2 Classify the following drugs to the above mentioned classes. (03 marks)

a) Physostigmine
b) Demecarium
c) Pilocarpine

1.3 Explain the structure activity relationship of cholinomimetic drugs. (10 marks)

02

2.1 Name three (03) categories of general anesthetics based on the rout of administration? (03 marks)

2.2 Write the synthetic pathway of ethyl chloride. (03 marks)

2.3 Briefly explain the following theories used to explain the mode of action of the general anesthetics. (09 marks)

a) Lipid theory
b) Physical Theory
c) Biochemical Theory

03.

3.1 Draw the sulphanilamide structure. (02 marks)

3.2 Write four (04) categories of sulphonamides based on the site of action? (02 marks)

3.3 "Sulphonamides may cause kidney damage by making crystal urea". Briefly explain. (03 marks)

3.4 Name the cardinal factors that determine the degree of crystal urea formation. (05 marks)

3.5 Sate two (02) methods to minimize crystal urea formation? (03 marks)

04.

4.1 Write the four (04) sub-categories of antineoplastic alkylating agents. (02 marks)

4.2 What is the sub-category for Mechlorethamine Hydrochloride? (02 mark)

4.3 Briefly explain the mode of action of antimetabolites as antineoplastic agents? (02 marks)

4.4 Write a brief note on methotrexate. (05 marks)

4.5 Complete the synthetic pathway of mercaptopurine. (04 marks)

