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**THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY
ACADEMIC YEAR 2018/2019 – SEMSETER I**



**BACHELOR OF PHARMACY HONOURS
BPU4243 MEDICINAL CHEMISTRY II
FINAL EXAMINATION
DURATION: THREE HOURS**

DATE: 15th March 2019

TIME: 09.30 a.m. –12.30 p.m.

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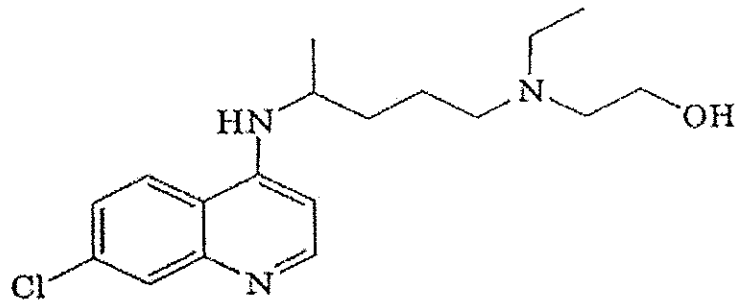
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2

Part B (40 marks)

01.

1.1



hydroxychloroquine

Briefly write the structure activity relationship of hydroxychloroquine. (05 marks)

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1.2 Write three (03) drug classes classified under anthelmintics. (03 marks)

I.....

II.....

III.....

1.3 What are the initial chemicals used to synthesize thiabendazole? (02 marks)

.....

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02

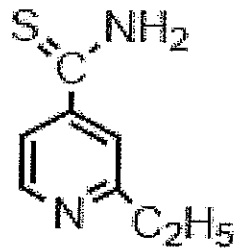
2.1 Write three (03) drug classes classified under antifungals (03 marks)

I.....

II.....

III.....

2.2 What is the drug represented by the below chemical structure? (05 marks)



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2.3 Draw the chemical structure of para-aminosalicylic acid. (02 marks)

03.

3.1 Draw the basic chemical structure of penicillin. (05 marks)

3.2 List two (02) main structural features of penicillin. (02 marks)

I.....

II.....

3.3 By means of a chemical reaction give the products of the hydrolysis of penicillin by hot dilute inorganic acids. (03 marks)

.....

4.

4.1 State four (04) sources of lead molecules. (04 marks)

I.....

II.....

III.....

IV.....

4.2 State an example of alteration on the biological activity due to methylation of prototype therapeutic compounds. (03 marks)

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4.3 State the effect of masking or removing polar groups in a therapeutic agent. (03 marks)

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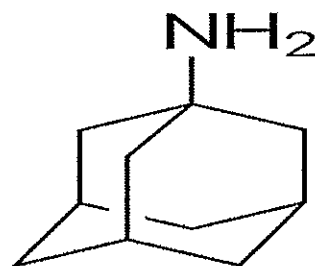
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Part C (30 marks)

01.

1.1 Write two (02) chemicals which inhibit early stages of viral replication (02 marks)

1.2 What is the drug shown in following chemical structure? (05 marks)



1.3 How would you synthesize the above drug mentioned in 1.2 (08 marks)

02. Anti-bacterial chemotherapy was initiated after the discovery of penicillin which is regarded as the breakthrough discovery of the modern chemotherapeutic treatments.

2.1 Briefly describe the structural features of β -Lactamase resistant β -Lactams. (10 marks)

2.2 State the structure activity relationship of isoniazid. (05 marks)

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