THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY
ACADEMIC YEAR 2023/2024 – SEMSETER I

BACHELOR OF PHARMACY HONOURS
FMU6505 – MEDICINAL CHEMISTRY- LEVEL 6
FINAL EXAMINATION
DURATION: THREE (03) HOURS

DATE: 27TH MARCH 2024 **TIME: 1.30 P.M. – 4.30 P.M.**

Part B – Short Answer Questions (20 Marks)

1.

1.1 Define antiviral agents? (02 marks)

.....

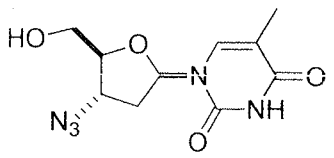
1.2 List three (03) categories of antiviral agents. (05 marks)

.....

.....

.....

1.3 Give the main mode of action of the following antiviral drug. (03 marks)



.....

.....

.....

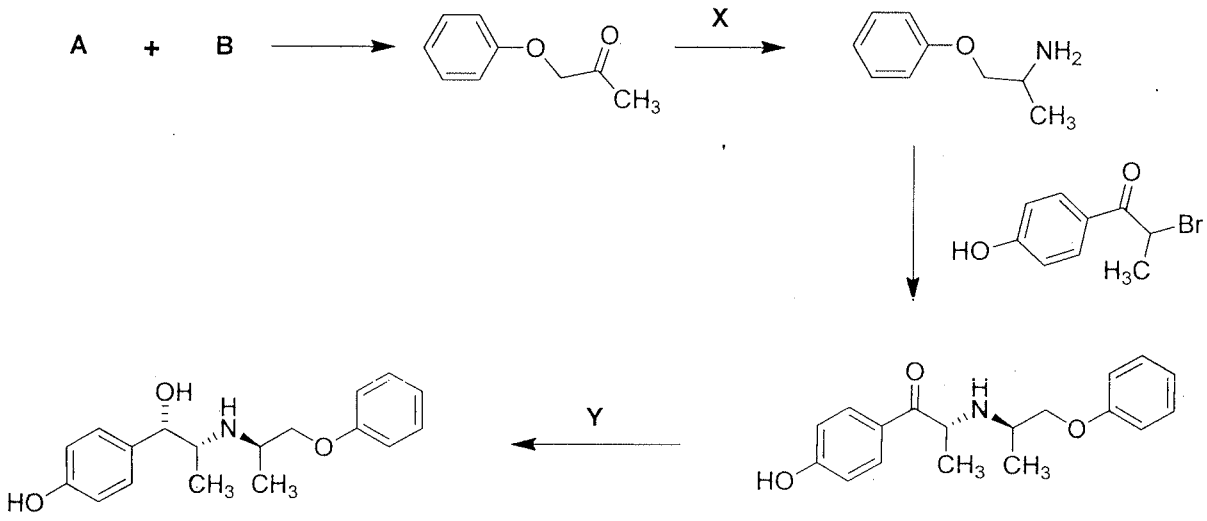
.....

.....

.....

Index No.....

2. Give missing reagents (**X** and **Y**) and structures (**A** and **B**) in the following synthesis of vasodilator drug, isoxsupurine. (10 marks)



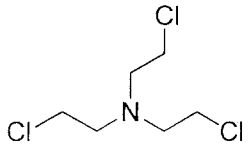
Index No.....

Part C – 04 Structured Essay Questions (60 Marks)

1.

1.1 Define Chemotherapy. (03 marks)

1.2 Give the synthesis of following mustard drug. (07 marks)



1.3 Give a reaction to show the activity of this drug using the structure of the active form of drug. (05 marks)

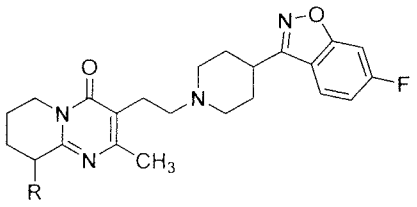
2.

2.1 State the Dopamine Hypothesis (06 marks)

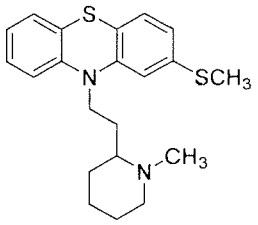
2.2 What is the basis of classifying the antipsychotic drugs? (01 marks)

2.3 Give the name of the groups in which each of the following antipsychotic drug belongs. (08 marks)

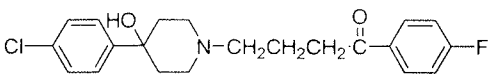
a.



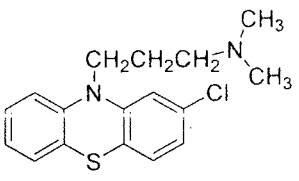
c.



b.



d.



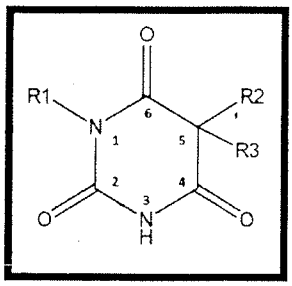
Index No.....

3.

3.1 What is the primary use of anticonvulsants? (03 marks)

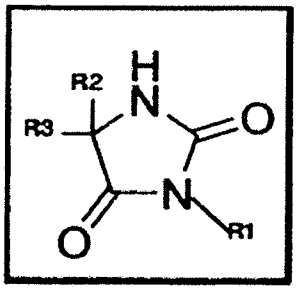
3.2 Using the given general structure, draw a structure of a barbiturate with an optimal activity.

(06 marks)



3.3 Using the given general structure, draw a structure of a Hydantoin with moderate activity.

(06 marks)



4.

4.1 What is inflammatory response? (03 marks)

4.2 Draw the structures of A to C in the following synthesis scheme of indomethacin.

(12 marks)

