Seat No.	

M.Sc. (Part - II) (Semester - III) (CBCS) Examination, March- 2023

ORGANIC CHEMISTRY

OCH 3.4 : Drugs and Heterocycles (Paper - XII (A))

Sub. Code : 80477/85416

Day and Date : Saturday, 24 - 06 - 2023 **Total Marks : 80**

Time : 10.30 a.m. to 1.30 p.m.

Instructions :
1) **Question No. 1 is compulsory.**
2) **Answer any two questions from each section.**
3) **Answers to the all the questions should written in the same answer book.**
4) **Figures to the right indicate full marks.**

Q1) A) Answer the following: **[16]**

a) Define the soft drugs?

b) Draw the structure of Amodiaquine.

c) What is the bioisosteres?

d) Draw the structure of penicillin - G

e) What is the hybridization state of carbon in pyrones?

f) What is the uses of coumarin?

g) Draw the structure of α and γ - pyrones.

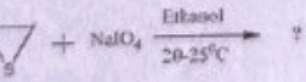
h) Draw the structure of azacyclopropane.

i) Give any two examples of Anti-tubular drugs.

j) What is QSAR?

k) Which species of Mosquito transmit Maleria?

B) Predict the product:

l) 

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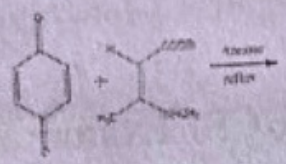
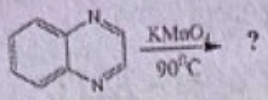
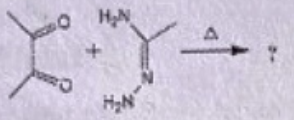
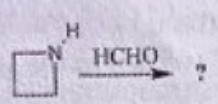
m) 

n) 

o) 

p) 

SECTION - I

Q2) a) Write the synthetic methods and uses of the following: **[8]**

i) Diflunisal

ii) Thiopental

b) Discuss the mechanism of conversion of penicillin to cephalosporin. **[4]**

c) Give an account on Receptors technology. **[4]**

Q3) a) What is an antihistamine? Give the synthesis and uses of Cyproheptadine. **[8]**

b) What is penicillin? Give the synthesis of semi synthetic penicillin. **[8]**

Q4) a) Write the short note on anti-AIDS. **[4]**

b) Give the synthesis and uses of Ethionamide. **[4]**

c) What are anti-neoplastic drugs? Write the synthesis of Uracil and Mephalan. **[8]**

SECTION - II

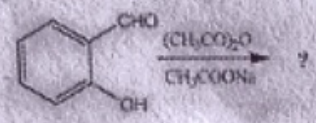
Q5) a) Enlist various synthetic methods of Pyrazine and 1, 2, 4-triazine. [8]

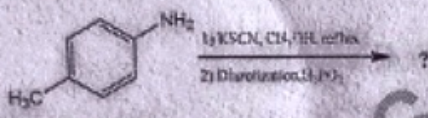
b) Explain the electrophilic substitution reactions of benzofuran. [8]

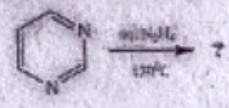
Q6) a) Give the synthetic methods of pyrilium salts. [8]

b) Explain the various chemical reactions of aziridines. [8]

Q7) Predict the product with mechanism of the following: [16]

a) 

b) 

c) 

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