

B Pharm 2nd Yr 2nd Sem Exam 2022

PHARMCEUTICAL ORGANIC CHEMISTRY-III

BP401T

Full Marks 100

Time 3 hour

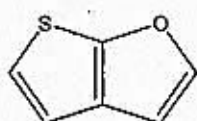
Group A

Answers should be to the point and brief, and written in the same order as they appear in the Question Paper.

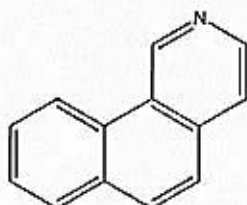
1. (a) Give systematic nomenclature of the following compounds:

[6 x 2

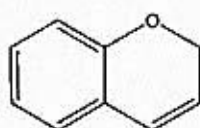
(i)



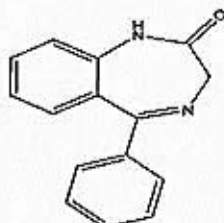
(ii)



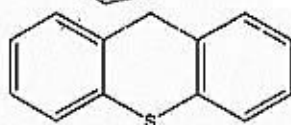
(iii)



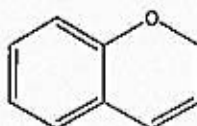
(iv)



(v)



(vi)



(b) Draw structures of the following heterocycles with numbering:

[4 x 2

(i) Purine; (ii) Isothiazole; (iii) Acridine; (iv) Quinazoline

Contd. p/2

2. Write notes on:
(a) Non-aromatic behavior of furan
(b) Aromatic behavior of furan [5 +10]

Or

Enumerate different methods of synthesis and reactions of Furfural [15]

3. Explain with examples:
(a) *R*- and *S*-
(b) *E*- and *Z*-
(c) *D*- and *L*- [3 x 5]

Or

Explain different conformational isomers of n-butane with their energy diagram.

Group B

4. Write short notes (any two) [5x2 = 10]
(a) Hydrogen bonding and tautomerism of pyrazole
(b) electrophilic addition and substitution reactions of imidazole
(c) Properties of pyridine
5. Discuss the synthesis, reactions and medicinal use of pyrazole. [15]

Group C

6. Write the principle and mechanism of Clemmensen and Wolff-Kishner reduction. What is the basic difference between these two reduction reactions. Explain with suitable example. [25]

Or

How will you prepare LiAlH₄? Explain the use of LiAlH₄ in different reduction reactions with suitable example. [5+20]

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