

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2124)

1677

B. Pharmacy 1st Semester Examination
Pharmaceutical Organic Chemistry (NS)
BP-112

Time : 3 Hours

Max. Marks : 70

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt any seven questions. All question carry equal marks

SECTION - A

- Discuss Wolf-Kishner reduction reaction.
 - What is Wurtz reaction? Give its mechanism.
 - Give sequence rules for R/S specification.
 - Describe two methods of preparation of ethanol.
 - What is Hyperconjugation effect with examples?
(2×5=10)
- Complete the following reaction
 - $\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2 + \text{Br}_2 \longrightarrow \text{A} + \text{B}$
 - $\text{CH} \equiv \text{CH} + \text{O}_3 \longrightarrow \text{A} \xrightarrow{\text{H}_2\text{O}} \text{B}$
 - $3\text{CH}_3\text{CHO} \xrightarrow{\text{H}_2\text{SO}_4} \text{A}$
 - Describe Saytzeff Rule with chemical reaction.
 - Give chemical reaction of conversion- primary alcohol to tertiary alcohol.
(2×5=10)

[P.T.O.]

3. (a) Explain Bayer's Strain theory.
(b) Give mechanism and example for acid catalyzed cleavage of epoxides.
(c) What are the differences between enantiomers and diastereomers?
(d) Explain Hell- Volhard- Zelinsky reaction by giving its mechanism.
(e) Explain what is plane polarized light? (2×5=10)
4. (a) Give a detailed classification of carbocations and carboanions and discuss their stability, Structure and formation. (5)
(b) What are general properties of amines? Write reactions of amines. (5)
5. (a) Differentiate between E₁ and E₂ elimination reactions. (6)
(b) Give general properties and reactions of alkynes. (4)
6. (a) Give chemical structure of the following compounds-
Mesitylene
Propenoic acid
N-Methylacetamide. (6)
(b) Explain electrophilic addition reactions of alkenes. (10)
7. Write an exhaustive note on various theories of acids and bases with examples. (10)
8. (a) Give at least five method of preparation of aldehyde with chemical reaction and name. (5)
(b) Describe in brief polarity of bonds and polarity of molecules. (5)
9. (a) Give two methods of preparation of ethyl bromide with chemical reaction and name. (5)
(b) Write an short note on aromaticity. (5)
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