

PARUL UNIVERSITY
FACULTY OF PHARMACY

Pharm.D Supplementary Examination, November 2017

Year: 1

Date: 15/11/2017

Subject Code: 08207104

Time: 10:00 am to 1:00 pm

Subject Name: Pharmaceutical Organic Chemistry

Total Marks: 70

Instructions:

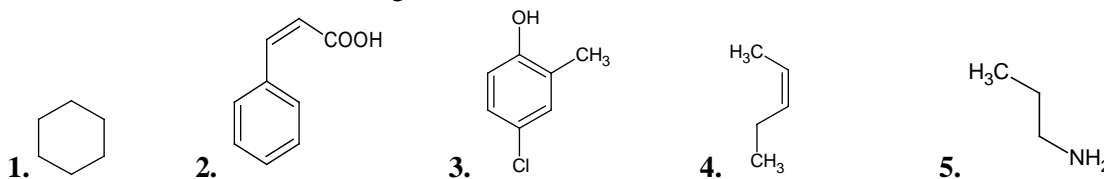
1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay Type Questions. (any 2 out of 3) (15 Marks Each) (30)

1. Write Mechanism of aldol condensation, claisen condensation, and wittig reaction.
2. Write brief note on Nucleophilic aliphatic substitution reaction, kinetics of second and first order reaction, mechanism and kinetics of SN_1 and SN_2 reactions.
3. Explain about 1, 2 elimination kinetics, E_2 and E_1 mechanism, elimination via carbocation, evidence for E_2 mechanism in brief.

Q.2 Short Essay Type Questions. (any 4 out of 5) (5 Marks Each) (20)

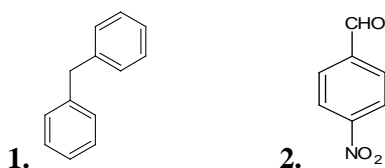
1. Write nomenclature of following structures:



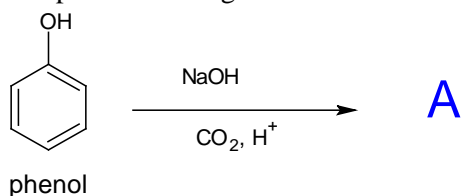
2. Discuss friedel craft alkylation in brief.
3. Write brief note on hyper conjugation.
4. Explain: Effect of substituent groups and determination of orientation in Electrophilic aromatic substitution.
5. Write brief note on Free radical halogenations of alkenes.

Q.3 Short Answers. (2 Marks Each) (20)

1. Explain: Mechanism and ionization of carboxylic acids.
2. Write Oxidation reduction reaction.
3. Write medicinal uses of Glyceryl trinitrate, and Urea.
4. Discuss about bimolecular displacement mechanisms in brief.
5. Write brief note on Polarity of bonds.
6. Write brief note about protic and aprotic solvents.
7. Write nomenclature of following structures:



8. Discuss Markownikoff rule in brief.
9. Complete following reaction:



10. Write Lowry Bronsted theory of acid and base.