QP Code: 222006 Reg. No......

Second Semester B.Pharm Degree Examinations July 2018

Pharmaceutical Organic Chemistry I (2017 Scheme)

Time: 3 Hours Max. Marks: 75

- Answer all questions
- Write equations wherever necessary

Essays (2x10=20)

- 1. Discuss E₁ and E₂ reactions with the help of suitable examples and discuss its mechanisms
- 2. Outline any four methods for the preparation of aldehydes. Explain nucleophilic addition reactions of aldehydes.

Short Notes (7x5=35)

- 3. How the substituents are affecting the basicity of amines.
- 4. Write IUPAC nomenclature for the following structure.

A)
$$CH_3$$
-C=CH-CH₂-CH₂-CI B) H C) CH_3 -C-CH₂-CH-COOH CH₃ CH_3 -CH₃-CH₂-CH₂-CH₃ CH_3

- 5. Discuss free radical addition reactions of alkenes with its mechanism.
- 6. Outline any two preparation and reactions of alkyl halides.
- 7. Add a note on addition reactions of conjugated dienes
- 8. Explain Markownikoff"s rule with mechanism.
- 9. Explain inductive effect and its role in the acidity of carboxylic acid.

Answer Briefly (10x2=20)

- 10. Construct the structure of 4-Chloro-2- butene and 3-methyl -2-butanol
- 11. Electromeric effect.
- 12. Carbocation
- 13. Mention any two qualitative tests for amines.
- 14. Saytzeffs Rule
- 15. Cannizzaro reaction
- 16. Structure and uses of Ethylene diamine and Glycerol
- 17. Mention uses of Amphetamine and Chloral hydrate
- 18. Carboxylic acids are more acidic than alcohols. justify
- 19. Complete the reaction: CH₃COCH₃ + Br₂ H+