

Code: 13R00105

B.Pharm I Year (R13) Supplementary Examinations December 2016

PHARMACEUTICAL ORGANIC CHEMISTRY – I

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What do you mean by electromeric effect?
 - (b) Give the structure of 5 chloro, 3 hydroxy-hexanoic acid.
 - (c) Give the structure of 2, 4 dinitro benzaldehyde.
 - (d) Give the structure of (E)-2-pentene.
 - (e) What product is obtained by the addition of HCl to 2-hexene in presence of H_2O_2 .
 - (f) Give an example of stereospecific reduction of 1-propyne.
 - (g) What is Saytzeff's rule?
 - (h) Give an example of W.
 - (i) Give an example of Oppenauer oxidation.
 - (j) Why are acid chlorides more reactive than carboxylic acids towards nucleophilic substitution?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT - I

- 2 Describe in detail Bayer's strain theory its merits and demerits.
- OR**
- 3 Describe the mechanism of free radical substitution reaction of methane with chlorine.

UNIT - II

- 4 Explain the thermodynamic factors controlling 1, 2 and 1, 4 addition of HBr to Butadiene.
- OR**
- 5 Give the mechanism of SN_1 and the factors that affect this reaction.

UNIT - III

- 6 Elucidate the theory of reactivity and orientation in Electrophilic Aromatic Substitution reaction.
- OR**
- 7 Give two reactions each of Naphthalene, Anthracene, Phenanthrene and Naphthacene.

UNIT - IV

- 8 Explain Kolbe-Schmidt and Reimer-Tiemann reactions with mechanism and examples.
- OR**
- 9 Give five general reactions of alcohols.

UNIT - V

- 10 Explain the stability of the carboxylate anion and the factors affecting the stability.
- OR**
- 11 Give some reactions of malonic and acetoacetic esters.
