

B.PHARM.
THEORY EXAMINATION (SEM-II) 2016-17
PHARMACEUTICAL ORGANIC CHEMISTRY

Time : 3 Hours

Max. Marks : 100

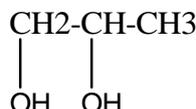
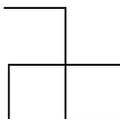
Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.

SECTION – A

1. Explain the following:

10 x 2 = 20

(a) Give the IUPAC name of following compounds.



- (b) What is Tollen's reagent?
 (c) Give Hoffmann degradation reaction.
 (d) Why acetaldehyde do not give Cannizaro reaction. Explain them.
 (e) Define pyrolysis.
 (f) What is R-S configuration..
 (g) How will you synthesize salicylaldehyde from phenol. Give reaction.
 (h) Give Friedal craft acylation in aromatic compound.
 (i) Aldehyde containing α -hydrogen undergo self addition in the presence of a base to form β -hydroxy ketone. This reaction is known as _____
 (j) Define diastereomers with suitable example.

SECTION – B

2. Attempt any five of the following questions:

5 x 10 = 50

- (a) What are the carbocation and carbanion, explain them in detail.
 (b) Write the preparation and chemical reaction of Grignard reagent.
 (c) Explain free radical substitution reaction in alkanes also describe Markovnikov addition in alkene.
 (d) Give definition, reaction, mechanism and applications of Oppeneaur oxidation.
 (e) Discuss nucleophilic substitution and nucleophilic elimination reaction of alcohols.
 (f) Give different chemical reactions of naphthalene and anthracene.
 (g) Write the addition reaction of aliphatic aldehyde & ketones.
 (h) Give electrophilic and nucleophilic substitution reaction in benzene.

SECTION – C

Attempt any two of the following questions:

2 x 15 = 30

3. Attempt any two of the following: (15x2=30) Define optical activity and discuss the component of polarimeter. Explain relative and absolute configuration.
 4. Discuss about the aromatic organic compounds and aromaticity. Outline the various hypothesis of structure of benzene.
 5. Give the definition, reaction mechanism & synthetic application of application of any two.
 (i) Cannizaro reaction
 (ii) MPV reduction.
 (iii) Benzoin condensation