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Roll No.

# B PHARM (SEM II) THEORY EXAMINATION 2017-18 PHARMACEUTICAL ORGANIC CHEMISTRY-I

Time: 3 Hours Total Marks: 75

Note: 1. Attempt all Sections.

#### SECTION A

# 1. Attempt all questions in brief.

 $10 \times 2 = 20$ 

- a. Write down the structure of 2,2,4-trimethylpentane and amyl alcohol
- b. What are chiral and achiral compounds?
- c. Discuss any two method of preparation of alkanes.
- d. What is Hybridization?
- e. Define structure and uses of Chloroform and Ethyl alcohol.
- f. What is Vector Meyer's test?
- g. Discuss the preparation of ketone from geminal di halides.
- h. Define crossed aldol condensation.
- i. What do you mean by nucleophile?
- j. Define structure and uses of Acetic acid and Lactic acid,

#### **SECTION B**

# 2. Attempt any two parts of the following:

 $2 \times 10 = 20$ 

- a. Differentiate E<sup>1</sup> and E<sup>2</sup> reactions with their kinetics and order of reactivity of alkyl halides. Explain factors affecting E<sup>1</sup> and E<sup>2</sup> reactions.
- b. Give the methods of preparation of alkyl halides. Discuss about SN<sup>1</sup> and SN<sup>2</sup> reactions in detail.
- c. What is carbonyl compound? Explain their qualitative test and methods of preparation.

### **SECTION C**

### 3. Attempt any *five* parts of the following:

 $7 \times 5 = 35$ 

- a. Give the detailed classification of organic compounds
- b. Define Sp<sup>3</sup> hybridization in alkanes. Explain halogenation reaction of alkanes.
- c. Describe Markovnikov and Anti-Markovnikov rule with suitable examples.
- d. Discuss methods of preparation and reactivity of conjugated dienes.
- e. Describe a detailed account of nucleophilic addition reaction of carbonyl compounds.
- f. Explain Cannizzaro and Perkin reaction with mechanism.
- g. Give the methods of preparation and reactivity of carboxylic acids. Explain the acidity of carboxylic acid.