J-014-1042003 Seat No. _____

M. P. M. (Sem. II) (CBCS) Examination

June / July – 2019

BP - 202 (T) : Pharmaceutical Organic Chemistry - I

Faculty Code : 014

Subject Code : 1042003

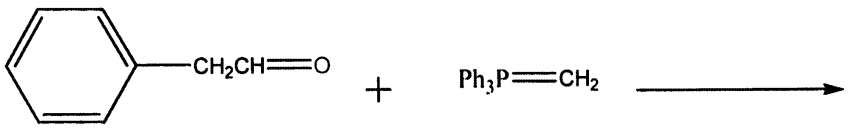
Time : **3** Hours] [Total Marks : **75**

1 Answer the following questions. **20**

(1) Give the structure and uses of Amphetamine.

(2) Comment: chloroacetic acid is more acidic than acetic acid.

(3) Complete the following reaction :



(4) Explain Saytzeffs orientation for addition reaction of alkene.

(5) Justify : E2 is regioselective and stereoselective reaction.

(6) What is the difference between organic and inorganic compound? Classify the organic compound with suitable examples.

(7) Correct if necessary and justify : Lower alcohols are insoluble in water.

(8) Comment: Order for basicity of amine is $2° > 1° > 3°$ in aqueous solution.

(9) Explain Sp^3 Hybridization of Alkane.

(10) Mention any two qualitative test for the identification of carboxylic acid.

2 Answer the following questions : (Any **Two**) **20**

(1) Define Carbonyl compounds. Outline three different synthesis for benzaldehyde and benzophenone. Give any two nucleophilic addition reaction of aldehyde and ketone.

(2) Write a detailed note on kinetics mechanism, sterecochemistry and factor affecting SN1 and SN2 reaction.

(3) Give structure and uses of following compounds.

(a) Iodoform

(b) Propylene glycol

(c) Ethanolamine

(d) Paraldehyde

(e) Acetyl salicylic acid

3 Answer the following questions : (Any **Seven**) **35**

(1) Differentiate between Markownikoff and anti-Markownikoff rule.

(2) Explain stability and free radical addition reactions of conjugated diene.

(3) Discuss in detail about Grignard reaction for the synthesis of Alkanes and Alcohols.

(4) Explain cannizaro and cross cannizaro reaction with examples.

(5) Define isomerism. Write an brief note on structural isomerism of' organic compound.

(6) Explain E2 versus E_1 reactions in alkene.

(7) Explain the mechanism for halogenation of alkanes.

(8) What are the uses of Carboxylic acid? Give any three reaction of alcohol.

(9) Draw the structure of the following :

(a) Ehanedioic acid

(b) Vanillin

(c) Glycerol

(d) Cyclohexa-1, 4-diene

(e) Tartaric acid
