



JBE-003-010102

Seat No. _____

M. Sc. (Chemistry) (Sem. I) (CBCS) Examination

December - 2019

C - 102 : Organic Chemistry

(Old Course)

Faculty Code : 003

Subject Code : 010102

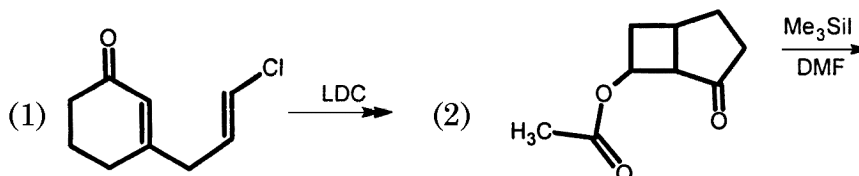
Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions carry equal marks.
(2) All five questions are compulsory.

1 Answer the following : (Any Seven) 14

- (a) Define the term, Carb-anion and enlist the factors which affects it's stability.
(b) Write the full form of LDC, DDQ, TMS-I, DCC, LDA and PTC.
(c) Differentiate Woodward and Prevost hydroxylation.
(d) Give a brief account on LFER.
(e) Discuss the principle and chemical reaction of Perkin reduction.
(f) Complete the followings :



- (g) Explain the mechanism of Prins Reaction.
(h) Express the Hammett equation and terms involved in it.
(i) Explain the principle and mechanism of Fries rearrangement.
(j) Discuss the mechanism of Pinacol-pinacolone's rearrangement.

- 2** Answer any **two** of the followings : **14**
- (a) Discuss the principle, Chemical reaction and mechanism of Robinson annulation.
 - (b) Discuss in detail, "Wilgerodt reaction".
 - (c) Describe Darzen reaction with its mechanism and applications.
- 3** Answer any **two** of the following : **14**
- (a) Explain Gillman reagents.
 - (b) Explain Wilkinson catalyst with its mechanism.
- OR**
- (a) Give a brief account on DDQ.
 - (b) Write the synthesis, mechanism and application of Crown-ether.
- 4** Answer the followings : **14**
- (a) Explain the principle, chemical reaction and mechanism of Wagner-Meerwein rearrangement.
 - (b) Discuss in detail, "Favorskii rearrangement"
- 5** Answer any **two** from the followings : **14**
- (a) Give an account on Aldol condensation reaction.
 - (b) Enlist the reagent used for Hydroboration and in detail discuss any one.
 - (c) Describe in details Chi Chi Babin reaction .
 - (d) Discuss Favorskii rearrangement.
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