

M.PHARM. (PHARMACEUTICAL CHEMISTRY) SEM. – I (CBCS – 2019 COURSE) :

WINTER – 2021

SUBJECT : ADVANCED ORGANIC CHEMISTRY – I

Day : Tuesday
Date : 16-11-2021

W-2021-20716

Time : 10:00 AM TO 1:00 P.M.
Max. Marks : 75

N.B.

- 1) Attempt any FIVE questions from the following.
- 2) Figures to the right indicate FULL marks.

Q.1 a) How will you differentiate between SN1 and SN2 reactions with reference to their mechanism, stereochemistry, factors affecting rate of reaction and energy profile of the reaction? (10)

b) Write a note on stability of carbocations. (05)

Q.2 a) Elaborate different rules of disconnections with examples. (10)

b) What are the strategies used for the synthesis of five membered ring explain with examples. (05)

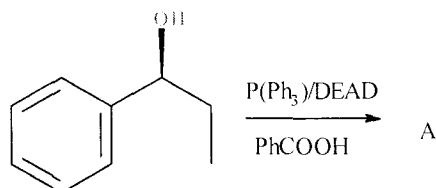
Q.3 a) Write in detail the synthesis of Quinine. (07)

b) With neat reactions describe the synthesis of Ketoconazole and Alprazolam. (08)

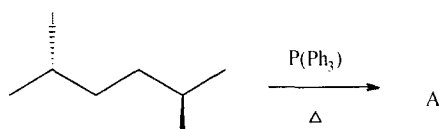
Q.4 a) How hydroxyl group is protected and deprotected with examples? (07)

b) Write the mechanism and stereochemistry of following reactions. (08)

i)



ii)



Q.5 a) With examples describe the rules employed in the dissection of target molecules. (07)

b) Apply synthon approach and explain synthetic strategies for Pyridine and Pyrrole. (08)

Q.6 Write notes on the following: (15)

- a) Free radical stability
- b) Mechanism involving E1
- c) Reactions involving Wittig reagent