

M. PHARM. SEM – I (PHARMACEUTICAL CHEMISTRY)
(CBCS – 2019 COURSE) : **MARCH-2022**
SUBJECT : ADVANCED ORGANIC CHEMISTRY – I

Day : **Wednesday**
Date : **23-03-2022** **11-20716-2022**

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

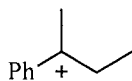
N.B.

- 1) **Q.1 and Q.5 are COMPULSORY.** Out of the remaining questions answer **ANY TWO** from **EACH** Section.
- 2) Answers to both sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

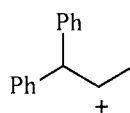
SECTION – I

Q.1 a) Arrange the following in the decreasing order of their stabilities: **(08)**

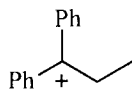
i)



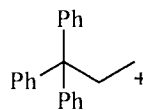
ii)



iii)

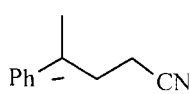


iv)

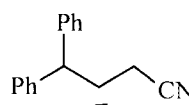


b)

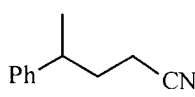
i)



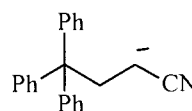
ii)



iii)



iv)



Q.2 With chemical reactions explain the applications of Aluminium isopropoxide, witting reagent and Osmium tetroxide. **(15)**

Q.3 Illustrate the mechanism and application of Mitsunobu reaction and Vilsmeier-Haack reaction. **(15)**

Q.4 Write notes on **ANY TWO** of the following: **(15)**

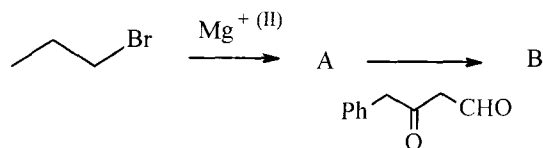
- a) How do you convert aniline into 2-phenyl quinoline?
- b) Describe SN2 mechanism.
- c) Dicyclohexylcarbodiimide

P.T.O.

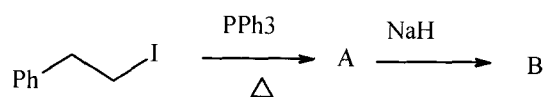
SECTION – II

Q.5 Give the major product formed in the following reactions. **(07)**

i)



ii)



Q.6 a) Describe the mechanism involved in Debus-Radziszewski imidazole synthesis and mention its application. **(07)**

b) Draw the synthesis of Ketoconazole and Chloroquine. **(08)**

Q.7 a) Explain in detail with examples rule governed in disconnection approach. **(08)**

b) Discuss with appropriate synthetic reactions, strategies for synthesis of pyridine. **(07)**

Q.8 Write notes on **ANY TWO** of the following: **(15)**

a) Sketch the reactions involved in Traube purine synthesis.

b) With schematic representation illustrate disconnection approach for carbonyl compounds.

c) Discuss in detail the protection and deprotections of alcohol groups.

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