

SUPPLEMENTARY
MASTER OF PHARMACY (M. PHARM.) (CBCS-2019 COURSE)
M.Pharm. Sem-I PHARMACEUTICAL CHEMISTRY :SUMMER- 2022
SUBJECT : ADVANCED ORGANIC CHEMISTRY-I

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 13-09-2022

S-20716-2022

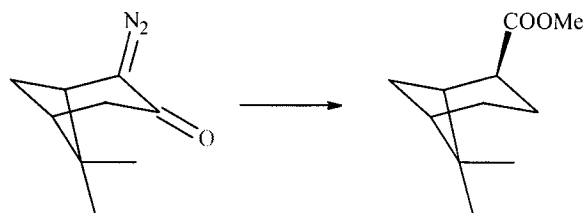
Max. Marks : 75

N.B.

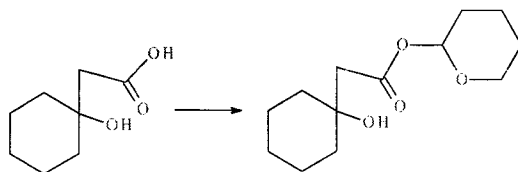
- 1) Questions 1 and 5 are **COMPULSORY**.
- 2) Answer to both sections should be written in **SEPARATE** answer books
- 3) Figures to the right indicate **FULL** marks.

SECTION - I

Q.1 Explain by giving the reagent and reaction mechanism how the transformation can be brought about. (08)



i)

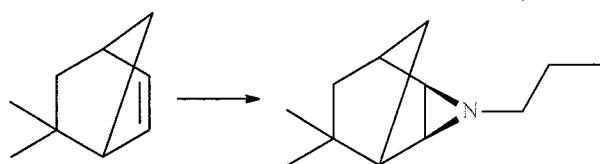


ii)

- Q2** With neat chemical reactions explain the applications of Titanium chloride, Wittig reagent and diazomethane. (15)
- Q3** Draw the scheme and write the mechanism along with applications of Michael addition, Vilsmeier-Haack and Doebner Miller reaction. (15)
- Q4** Write notes **any Two** of the following (15)
- a) How do you convert 4-nitrobenzoic acid to 4, 4'-biphenyl dicarboxylic acid and 4-iodobenzoic acid.
 - b) Stabilities of carbocation and free radical
 - c) Applications of dicyclohexylcarbodiimide and Osmium tetroxide

SECTION - II

Q.5 Give the method of preparation of following product from the given starting compound and reasonable reagent. Give the reaction mechanism (07)



P.T.O.

- Q.6 a) Describe the mechanism involved in the Combes quinoline synthesis and Bernsthsen acridine synthesis by mentioning their applications. (07)
- b) Draw the synthesis of Triamterene and Sulfamerazine. (08)
- Q.7 a) What is synthon approach and mention its importance in organic synthesis. Describe the rules which guide for the planning for organic compounds. (08)
- b) How do you plan for the synthesis of pyrrole and its derivatives? (07)
- Q.8 Write notes **any Two** of the following (15)
- a) Disconnection of 1,2 difunctionalized compounds
- b) Protection and deprotection of carbonyl compounds
- c) Synthon approach to indole synthesis

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