

M.Sc. CHEMISTRY
SCLS, JAMIA HAMDARD
SEMESTER-IV EXAMINATION, 2019
PAPER CODE – MCHC 402 (Backlog)
ORGANIC CHEMISTRY – II

(Write your Roll No. at the top immediately on receipt of this question paper)

Time: 3hr

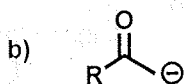
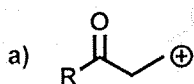
Maximum marks: 75

Attempt ALL the questions.

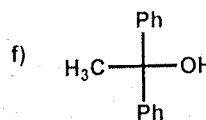
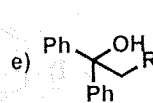
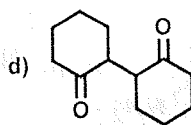
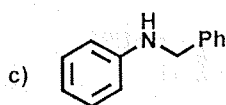
Q1. Answer ALL the questions given below

1x15=15

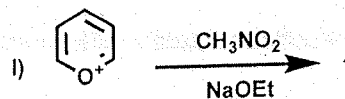
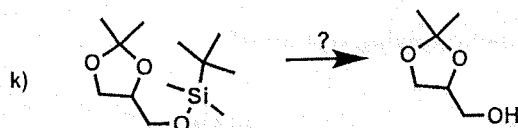
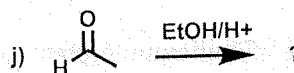
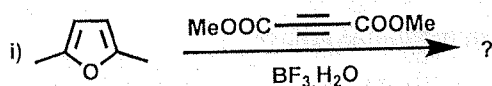
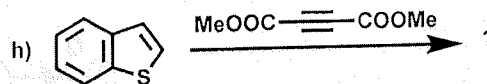
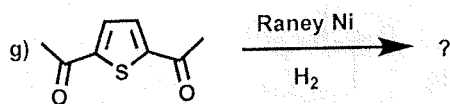
A. Write the synthetic equivalents for the given synthons (a-b)



B. Give the synthons results in the following compounds (c-f)



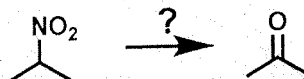
C. Complete the following conversions



m. Draw the more stable form of camphor?

n. What is the biological importance of Juvabione?

o. Identify the suitable reagent for the following conversion

Q2. Answer ANY TWO of the following

2x7.5=15

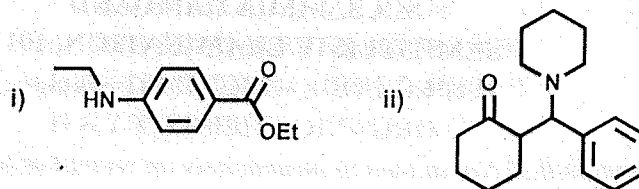
A. State the guidelines for choosing disconnections?

B. What is FGI? Explain briefly about the importance of FGI in Retrosynthesis?

C. What is two group C-X disconnection? Explain the 1,3-diX with an suitable example?

P.T.O.

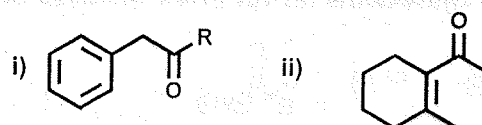
D. Based on disconnection approach, outline a convenient synthesis of given molecules?



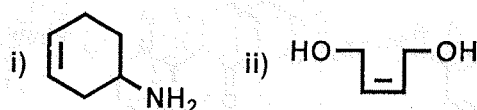
Q3. Answer ANY TWO of the following

2x7.5=15

- A. What is umpolung? State any two umpolung synthons and their utility in organic synthesis?
- B. Write a short note on two group C-C disconnection of 1,3-difunctionalised compounds?
- C. Show the retrosynthetic analysis of the following compounds?



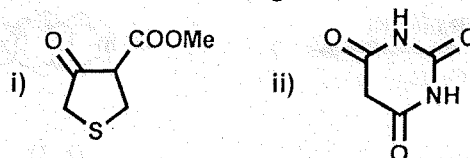
D. Based on the disconnection approach outline the synthesis of the following molecules?



Q4. Answer ANY TWO of the following

2x7.5=15

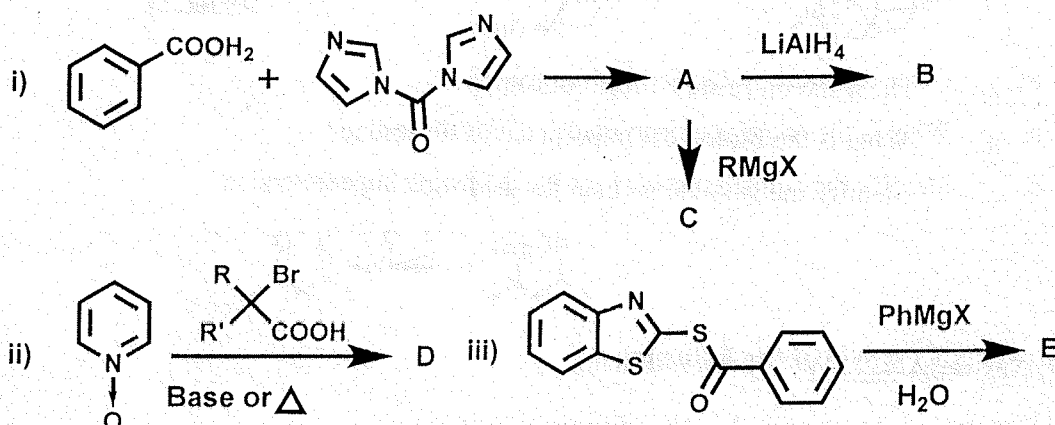
A. Propose the suitable synthetic route for the following molecules using disconnection approach?



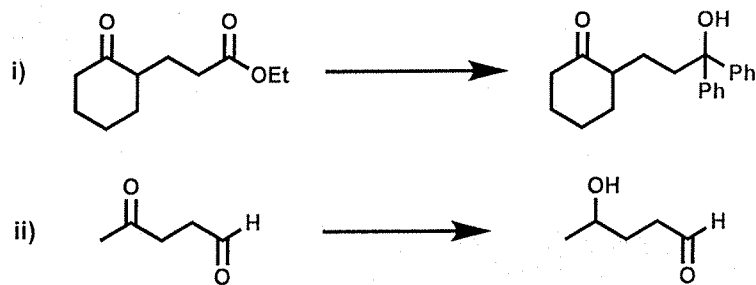
B. Illustrate the use of following protection groups in organic synthesis

- i) BOC ii) Trityl group iii) PAC ester

C. Identify the products/intermediates formed in the following reactions?



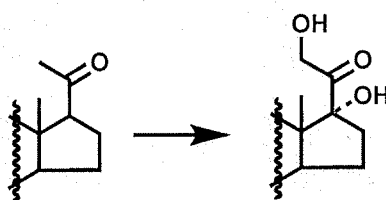
D. How the following conversions can be made successful using a suitable protecting group?



Q5. Answer ANY TWO of the following

2x7.5=15

- Outline stereoselective synthesis of Juvabione?
- Outline the total synthesis of Camphor?
- How will you bring about the following conversion-?



D. Write the biological importance of Vitamin D, Cortisone and Reserpine?

-----xXx-----