

## M.Sc. Semester - 3 (CBCS) Examination

Oct/Nov. -2019- [OLD COURSE]

## ORGANIC SYNTHESIS- A DISCONNECTION APPROACH (CORE)

Time: 2:30 Hours

Marks: 70

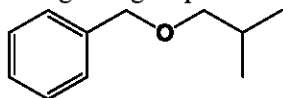
## Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

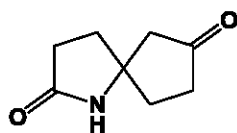
## Q.1 Answer any seven of the following ten questions.

[14]

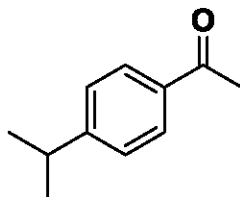
1. What is disconnection analysis? Explain in brief.
2. Define (i) Synthone (ii) Synthetic equivalent
3. What is umpolung?
4. How will you disconnect compound having 1,2-diketone groups?
5. What is FGR strategy? Explain with one example.
6. Enlist various protecting strategy for -NH<sub>2</sub> group.
7. Using one group disconnection strategy, explain the retro-synthesis of the following TM:



8. Using two group disconnection strategy, explain the retro-synthesis of the following TM:



9. Create disconnection analysis using the strategy *order of events* & propose synthesis for following TM:

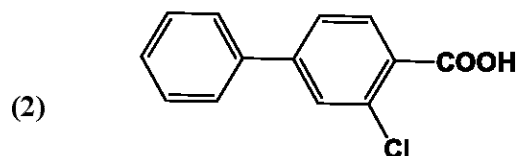
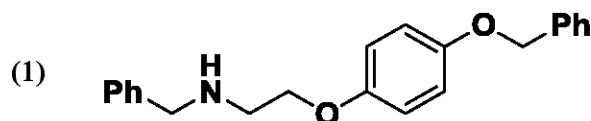


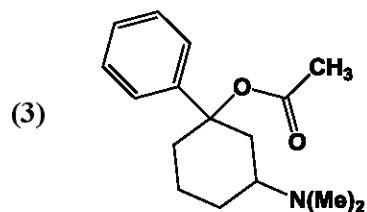
10. What is reconnect strategy? Explain with one example.

## Q.2 Answer any two of the following three questions.

[14]

Explain the disconnection analysis &amp; proposed synthesis of any two TM from the followings three.





Q.3 Answer the following questions.

[14]

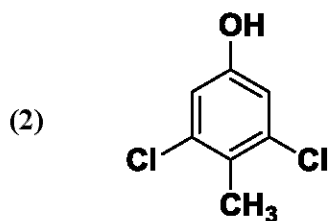
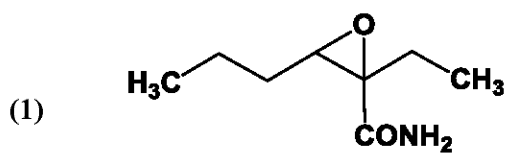
1. Enlist various synthon & synthetic equivalent for aromatic electrophilic and nucleophilic substitution reactions.
2. Explain disconnection strategy for carbonyl compounds having consonant & dissonant polarity with suitable example.

OR

Q.3 Answer the following questions.

[14]

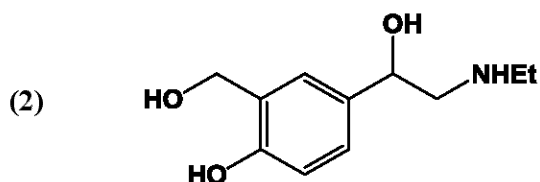
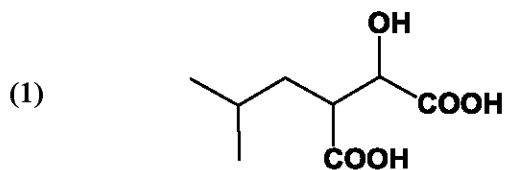
Explain the disconnection analysis and proposed synthesis of the following TM:

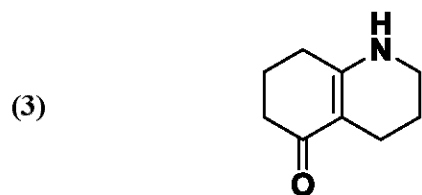


Q.4 Answer any two of the following three questions.

[14]

Explain the disconnection analysis & proposed synthesis of **any two** target molecules from the following.

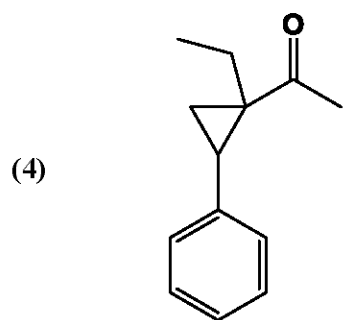
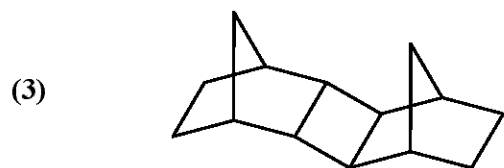
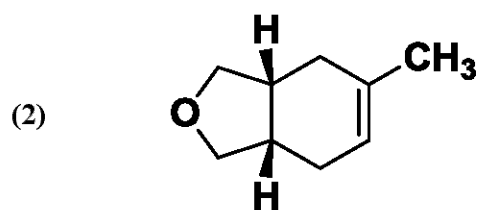
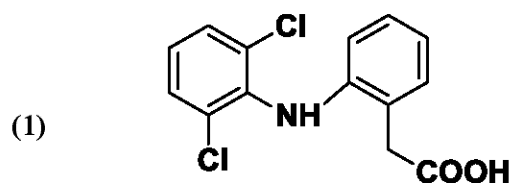




Q.5 Answer any two of the following four questions.

[14]

Give the disconnection strategy and synthesis of any two from following the following.



\*\*\*\*\*