

M.Sc. Semester - 3 (CBCS) Examination

DEC/JAN. - 2020 [OLD COURSE]

ORGANIC SYNTHESIS- A DISCONNECTION APPROACH(CORE)

Time: 1:30 Hours

Marks: 42

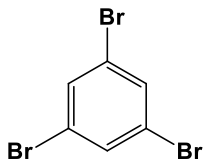
Instructions:

1. Figure to the right indicate marks.
2. There are five questions in the question paper.
3. Answer any three of the following questions.

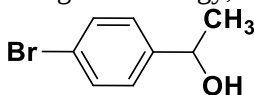
Q.1 Answer any seven of the following ten questions.

[14]

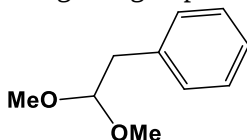
1. What is Retrosynthesis?
2. Define (i) Synthons (ii) Synthetic equivalent
3. Give examples of following synthon:(i) a^3 (i) d^2
4. What is umpolung reagent ? Give two examples.
5. How will you disconnect compound having 1,2-diol groups? Explain with one example.
6. What is FGR ? Explain the disconnection analysis of the following TM using FGR.



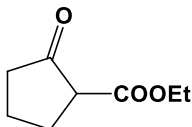
7. Using FGI strategy, explain the disconnection analysis for the following TM.



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



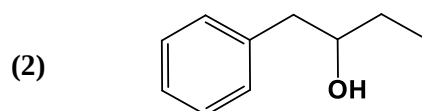
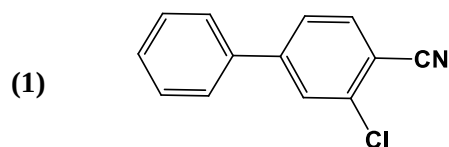
9. Discuss the retro-synthesis strategy for following 1,3-dicarbonyl TM.

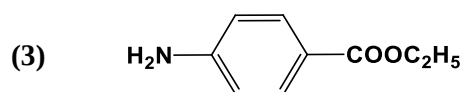


10. What is reconnect strategy? Explain with one example.

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

[14]

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



Q.3 Answer the following questions.

[14]

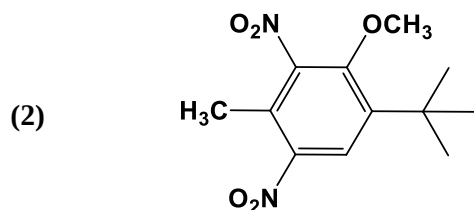
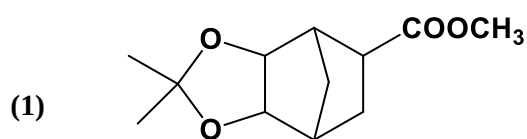
1. Enlist various synthon & synthetic equivalent for aromatic electrophilic and nucleophilic substitution reactions.
2. Explain disconnection strategy for carbonyl compounds having consonant & dissonant polarity with suitable example.

OR

Q.3 Answer the following questions.

[14]

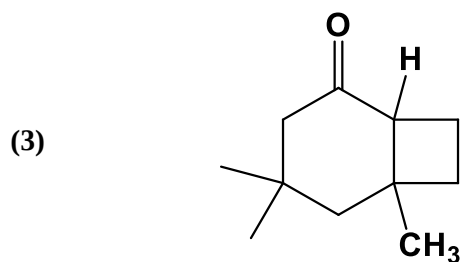
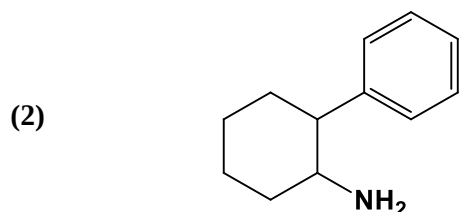
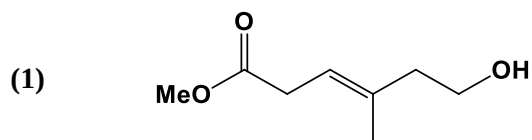
Explain the disconnection analysis and proposed synthesis of the following TM:



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.

