



JAY-003-1103006

Seat No. _____

M. Sc. (Sem. III) (CBCS) Examination

December – 2019

Organo-pharmaceutical Chemistry

**C(OP) - 302 : Organic Synthesis - A Disconnection
Approach
(Core)**

**Faculty Code : 003
Subject Code : 1103006**

Time : $2\frac{1}{2}$ Hours]

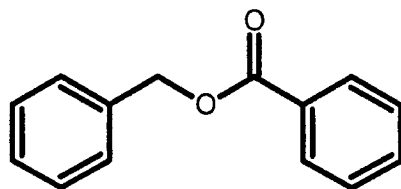
[Total Marks : 70

- Instructions: (1) All questions are compulsory.
(2) All Questions carry equal marks.
(3) Attempt all questions.

1 Answer the followings (Any seven).

14

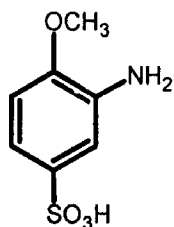
- Explain Illogical disconnection with suitable example.
- Define, "Functional Group Interconversion" and explain it with suitable example.
- Define Synthons by citing proper example.
- Giving suitable examples, explain the synthetic equivalent.
- Disconnect the following molecule and give its synthesis;



- Give retero-synthetic analysis and synthesis of followings;



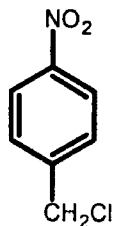
g. Explain order of events for the following molecules;



h. Define the terms: "Target Molecule" & explain it

i. Do the disconnection and plan the synthesis of Piperonal.

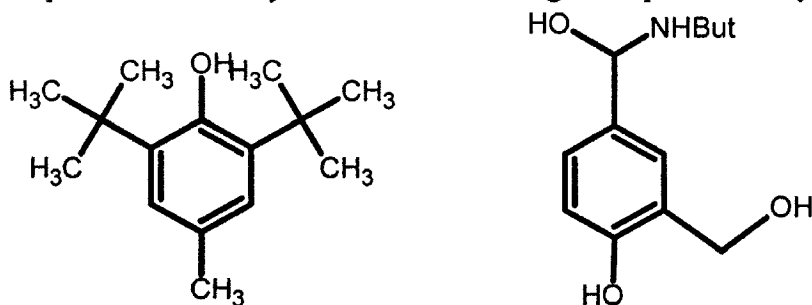
j. Explain briefly order of events for following;



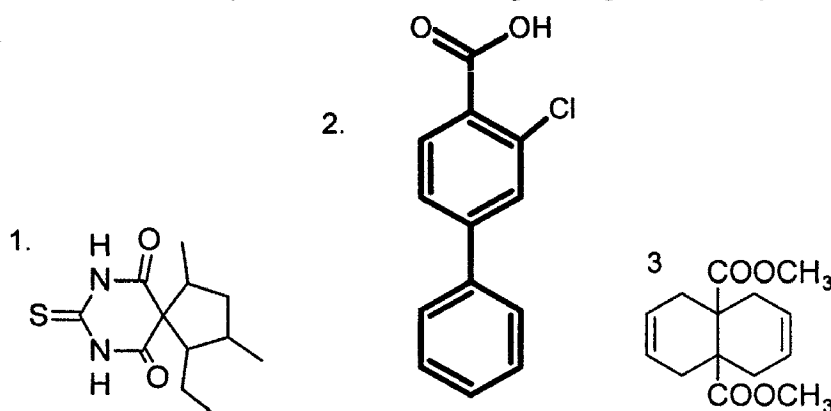
2 Answer the following (any two).

14

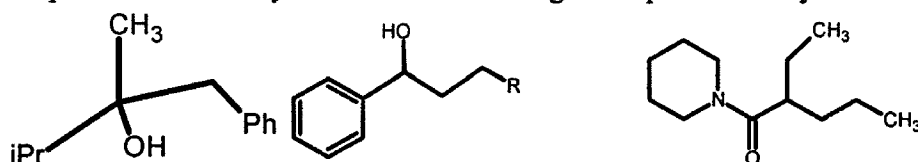
a) Explain the retrosynthesis of followings and plan their synthesis:



b) Give the retrosynthesis of followings and plan their synthesis:



c) Explain the retrosynthesis of followings and plan their synthesis:

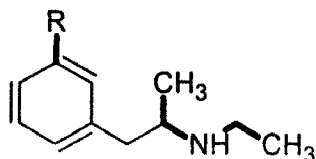


3 Answer the following:

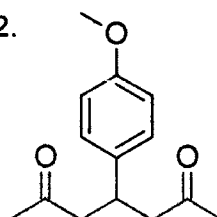
14

a) Do the disconnection and plan the synthesis for the following:

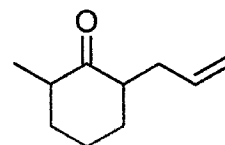
1.



2.

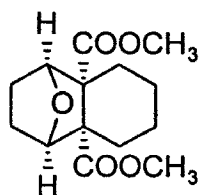


3.

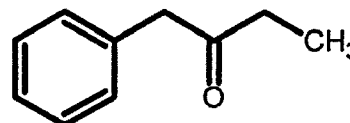


d) Give the retrosynthesis of followings and plan their synthesis:

(i)



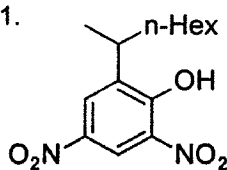
(ii)



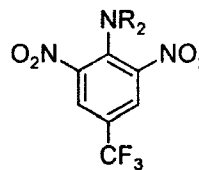
OR

a) Do the disconnection and plan the synthesis for the following:

1.

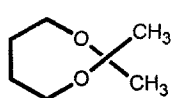


2.

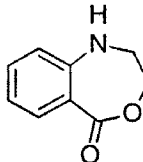


b) Do the disconnection and plan the synthesis for the following:

1.



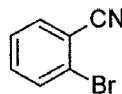
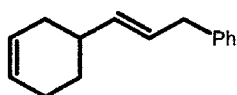
2.



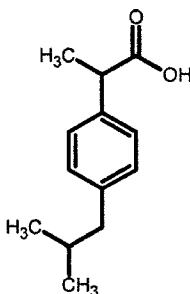
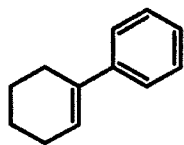
4 Answer the following

14

a) Do the disconnection and suggest the synthesis of followings;



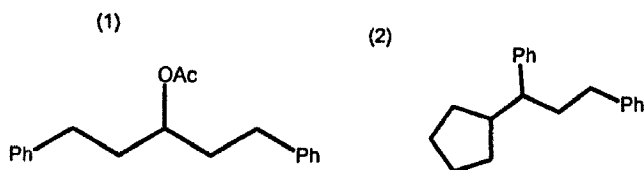
b) Do the disconnection and plan the synthesis for the following;



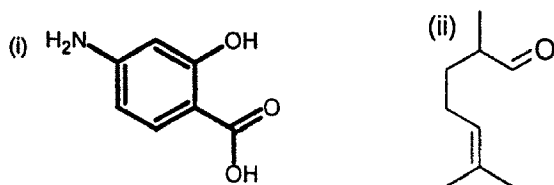
5 Answer Any Two the following Questions(Out of Four)

14

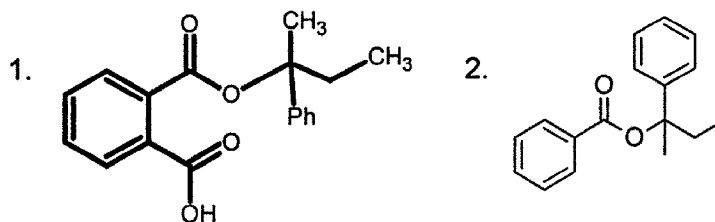
a) Plan the synthesis for the following molecules using disconnection approach;



b) Explain the retero-synthetic analysis and write the synthesis of following target molecules:



c) Disconnect the following Target molecules and plan their synthesis



d) Explain the retero-synthetic analysis and write the synthesis of following target molecules:

