



NCE-003-036203 Seat No. \_\_\_\_\_

**M. Sc. (Pharma. Organic Chemistry)  
(Sem. II) (CBCS) Examination**

April / May - 2017

**POC - 203 : Organic Synthesis -  
A Disconnection Approach**

**Faculty Code : 003**

**Subject Code : 036203**

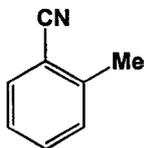
Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

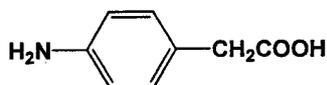
- Instructions :** (1) All Questions are compulsory and carry equal 14 marks.  
(2) Draw suitable diagram / Scheme wherever necessary.

1 Answer any **seven** of the following ten questions : 14

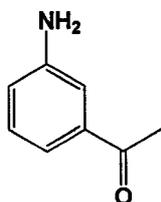
- (1) Define : (i) Disconnection  
(ii) Synthons
- (2) Write the synthetic equivalents for the Synthons  
(i)  $a^3$  (ii)  $d^1$ .
- (3) What is FGI ? Explain the disconnection analysis of the following TM using FGI.



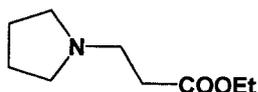
- (4) How will you disconnect compound having 1, 6 - diketone groups? Explain with one example.
- (5) Explain the disconnection strategy for the following TM.



- (6) Using FGI disconnection strategy, explain the retrosynthesis of the following TM :

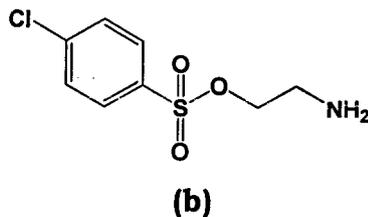
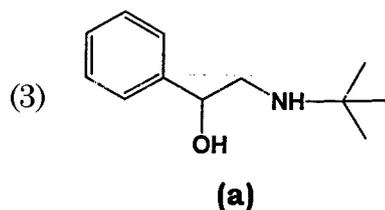
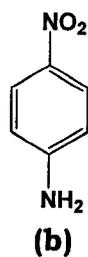
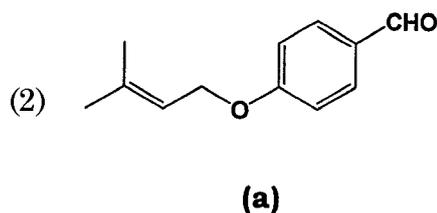
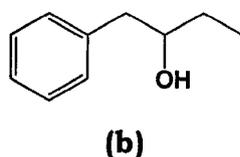
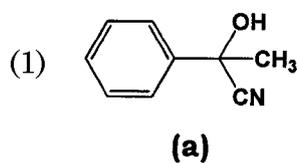


- (7) Give the disconnection strategy & synthesis of the TM :



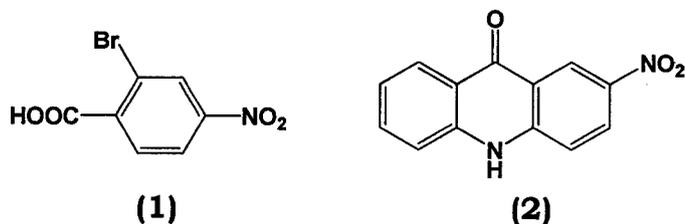
- (8) What is protecting group? Give two examples of protective groups for  $NH_2$ .
- (9) What is illogical disconnection? Explain with example.
- (10) Explain with suitable example (a) FGR (b) Disconnection of 1,2 - diols.

- 2 Answer any **two** of the following three questions : 14  
 Explain the disconnection analysis & proposed synthesis of any **two** TM from the following three question.



3 Answer the following questions : 14

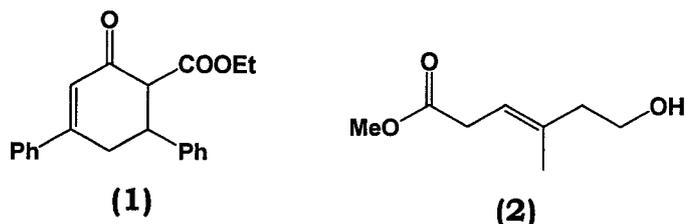
Explain the disconnection analysis and proposed synthesis of the following TM.



OR

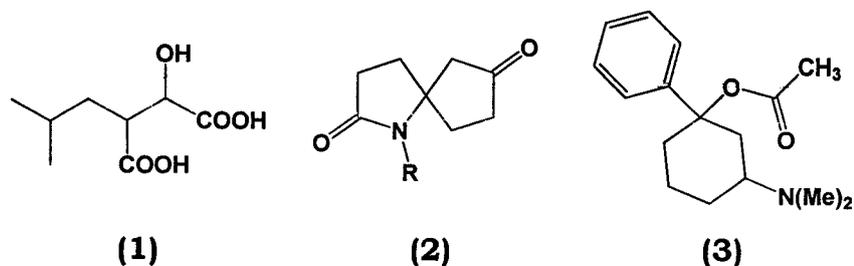
3 Answer the following questions : 14

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



4 Answer any **two** of the following three questions : 14

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



- 5 Answer any **two** of the following four questions : 14  
Give the disconnection strategy and synthesis of any **two**  
from following :

