

PA-003-1103006

Seat No.

M. Sc. (Sem. III) (CBCS) Examination May / June - 2018

C(OP) - 302 : Organo-Pharmaceutical Chemistry (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

(a) Do the disconnection and plan the synthesis for following using Mannich reaction:

- (b) Define Synthon by citing proper example.
- (c) Giving suitable examples, explain the synthetic equivalent.
- (d) Give the disconnection and plan the synthesis of

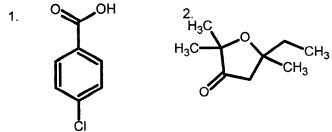
- (e) Explain Illogical disconnection with suitable example.
- (f) Explain: Unpolung reaction with suitable example.
- (g) Explain the term "Order of events" considering following molecules:

- (h) Do the disconnection and plan the synthesis of Piperonal.
- (i) Explain:"FGI" with suitable example.
- (j) Define the terms: "Target Molecule" and explain it.

2 Answer the following: (any three)

(a) Do the disconnection and suggest the synthesis of:

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



(c) Do the disconnection and plan the synthesis for the following :

(1)
$$CH_2$$
 (2) CH_3

(d) Synthesis the following molecules using disconnection plan:

$$\begin{array}{c} (1) \\ H_3C \\ H_3C \\ H \end{array} \begin{array}{c} CH_3 \\ CH_3 \\ CH_3 \end{array}$$

3 Answer the following: (any two)

(a) Give the retero synthesis of followings and plan their synthesis:

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(b) Write the retero-synthesis of followings and plan their synthesis:

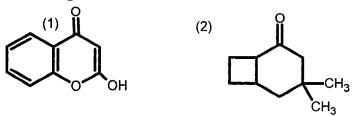
$$(1) \begin{array}{c} H_3C \\ OH \\ N \\ H \end{array} \begin{array}{c} CH_3 \\ H_3C \\ H \end{array}$$

(c) Explain the retero-synthesis of followings and plan their synthesis:

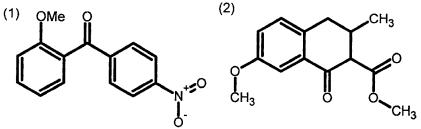
4 Disconnect the following Target molecules and plan their 14 synthesis: (any six)

5 Answer the following: (any three)

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



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



(c) Do the disconnection and plan the synthesis for the following :

(d) Do the disconnection and plan the synthesis for the following:

