

M.Sc.(Chem.) Semester - 4 (CBCS) Examination

April/May-2022 (NEW 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 (a) Answer the following **04**

- (1) What is disconnection analysis? Discuss Dummy group strategy with suitable example.
- (2) Give two examples of acceptor and donor synthon.

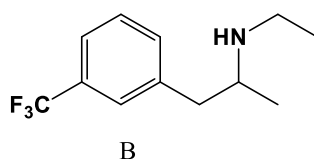
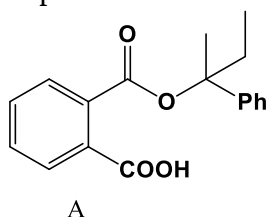
Q.1 (b) Answer any two question out of three. **10**

Discuss disconnection analysis and proposed synthesis of following commercial product:

- (1) Ibuprofen
- (2) Benzocaine
- (3) Bumetanide

Q.2 (a) Answer the following **04**

- (1) Explain disconnection strategies for following TM (A & B):

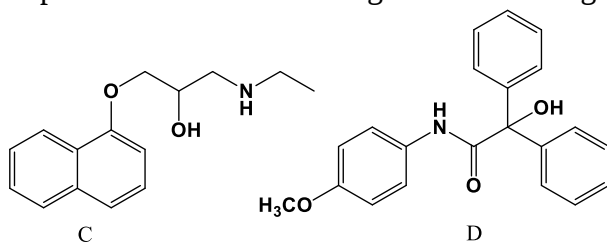
**Q.2 (b) Answer any two question out of three** **10**

Discuss disconnection analysis and propose synthesis of following TM:

- (1)
- (2)
- (3)

Q.3 (a) Answer the following**04**

- (1) Explain disconnection strategies for following TM (C & D):

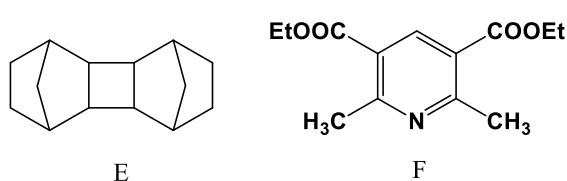
**Q.3 (b) Answer any two question out of three.****10**

Discuss disconnection analysis and proposed synthesis of following TM:

- (1)
- (2)
- (3)

Q.4 (a) Answer the following**04**

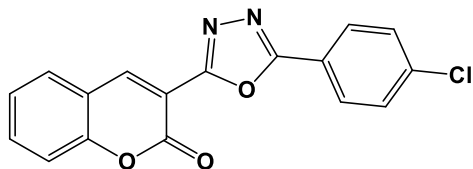
Explain disconnection strategies for following TM (E & F):

**Q.4 (b) Answer any two question out of three****10**

Discuss disconnection analysis and proposed synthesis of following TM:

- (1)
- (2)

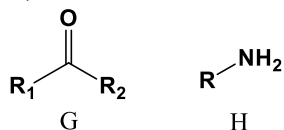
(3)



Q.5 (a) Answer the following

04

- (1) Explain Protection-Deprotection strategies for following Functional group (G & H)::

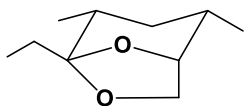


Q.5 (b) Answer any two question out of three

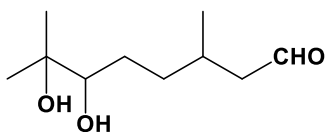
10

Discuss disconnection analysis and proposed synthesis of following TM:

(1)



(2)



(3)

