

C. U. SHAH UNIVERSITY

Winter Examination-2022

Subject Name: Disconnection Approach

Subject Code: 5SC03DAC1

Branch: M.Sc. (Chemistry)

Semester: 3

Date: 21/11/2022

Time: 11:00 To 02:00

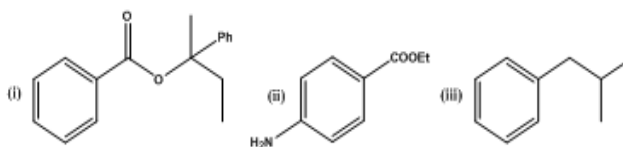
Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

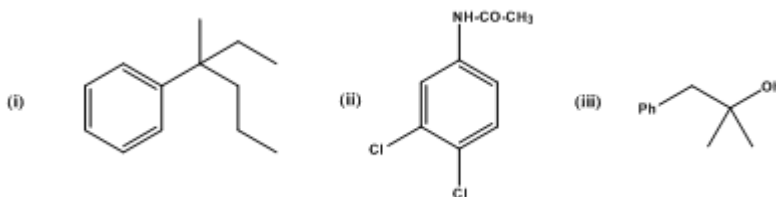
SECTION – I

- Q-1 Attempt the Following questions (07)**
- a. Define: Disconnection Approach **01**
 - b. What do you mean by Synthons? Give one example of synthon. **01**
 - c. What is Synthetic equivalent? Give one example of it. **01**
 - d. What is called Functional Group Interconversion (FGI)? **01**
 - e. Write down Retrosynthetic analysis and synthesis of BHT. **01**
 - f. Define: One Group Disconnection **01**
 - g. Define with one example: Umpolung reaction **01**
- Q-2 Attempt all questions (14)**
- a. Explain the Order of Event in Details. **07**
 - b. Do the Disconnection and plan the synthesis of the following molecules. **07**



OR

- Q-2 Attempt all questions (14)**
- a. Do the Disconnection and plan the synthesis of the following molecules. **07**



b. Write the retrosynthetic analysis for synthesis of the following molecules. **07**

Q-3 **Attempt all questions** **(14)**

a. Write down the criteria of good disconnection and explain the disconnection analysis and synthesis for the following molecule. **07**

b. Explain the disconnection analysis and synthesis of the following molecules. **07**

OR

Q-3 **Attempt all questions** **(14)**

a. Discuss the disconnection analysis and synthesis of the following molecules. **07**

b. Explain the disconnection analysis and synthesis of the following molecules. **07**

SECTION – II

Q-4 **Attempt the Following questions** **(07)**

a. Define: Chemoselectivity **01**

b. Give one example of 1,4-difunctionalised compound (Structure only). **01**

c. Draw the structure of Benzyloxy carbonyl chloride (Cbz-Cl) protecting group of amines. **01**

d. Write down Mannich Reaction. **01**

e. Give one example of Diel's Alder reaction. **01**



- Q-5**
- f. Write down Benzoin condensation reaction. **01**
 - g. Give the characteristics of protecting groups. **01**
- Attempt all questions (14)**
- a. Explain the retrosynthetic analysis and synthesis of the given molecules. **07**

- b. Discuss retrosynthetic analysis and synthesis of the given molecules. **07**

OR

- Q-5**
- Attempt all questions (14)**
- a. Explain retrosynthetic analysis and synthesis of the given molecules. **07**

- b. Discuss retrosynthetic analysis and synthesis of the given molecules. **07**

- Q-6**
- Attempt all questions (14)**
- a. Explain retrosynthetic analysis and synthesis of the given molecules. **07**

- b. Discuss retrosynthetic analysis and synthesis of the given molecules. **07**

OR

- Q-6**
- Attempt all Questions (14)**
- a. Write a note on use of protecting group in dipeptide synthesis. **07**
 - b. Explain retrosynthetic analysis and synthesis of the given molecules. **07**

