

Seat No.:

## MARCH - 2022 (Summer session) Examination

Subject Code: 80476

(विद्यार्थ्यांनी हा विषय कोड OMR वर लिहावा / Student should fill this code on OMR sheet)

Subject Name: Master Of Science ( New CBCS )\_80476\_60842/74449/80476 - Advanced Synthetic Methods\_06.08.2022\_10.00 AM

Date: 06-08-2022

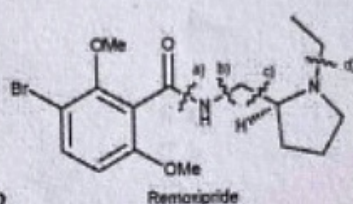
Time: 10:00:00 to 11:00:00

QP Code: 10100QP

Total Marks : 50 Each Question 2 Marks, Total 25 Ques, Duration 1 Hr

### 1. Question

1. For the following structure, which of the disconnections (a-d) is likely to be the



best option?

- a. Disconnection a
- b. Disconnection b
- c. Disconnection c
- d. Disconnection d

a. A  
c. C

b. B  
d. D

### 2. Question

2 Which of the following statements best describes a disconnection in retrosynthesis?

- a. A disconnection involves a theoretical disconnection of a bond in a target structure in order to identify simpler structures that could be linked through the formation of that bond.
- b. A disconnection involves identifying stages where a bond is split in the corresponding synthesis.
- c. A disconnection identifies retrosynthetic stages which would not be feasible in the corresponding synthesis.
- d. A disconnection describes the reaction conditions required to split a target structure into simpler molecules.

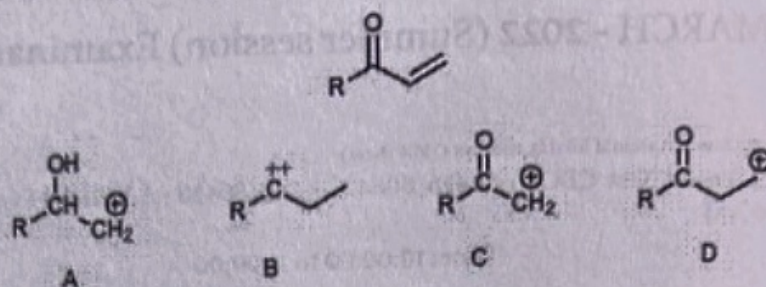
a. A  
c. C

b. B  
d. D

### 3. Question



3 Which of the synthons (A-D) represents the following reagent?



- a. Synthon A
- b. Synthon B
- c. Synthon C
- d. Synthon D

a. A  
c. C

b. B  
d. D

4. Question

4 Which of the following statements about convergent synthesis is FALSE?

- a. The overall yield of the final product is likely to be lower than that of a linear synthesis.
- b. The overall yield of the final product is likely to be higher than that of a linear synthesis.
- c. The more convergent pathways that are used, the higher the overall yield of the final product will be.
- d. Convergent synthesis is more useful if a multi-step synthesis is required.

a. A  
c. C

b. B  
d. D

5. Question

5 What happens when glycol reacts with periodic acid?

- a. No reaction
- b. Ketones will be formed
- c. Aldehyde will not be formed
- d. Monohydric alcohols will be formed

a. A  
c. C

b. B  
d. D

6. Question



21. Question

- 21 Microwave dielectric heating works with.....&.....mechanism.
- Ionic conduction&electron polarization.
  - Dipolar polarization & ionic conduction
  - Both a & b
  - None of these

a. A

b. B

c. C

d. D

22. Question

- 22 \_\_\_\_\_ is the fundamental advantage of the sono chemistry in organic synthesis without solvents.
- High yields
  - High energy requirements
  - Use of solvents
  - High wastes

a. A

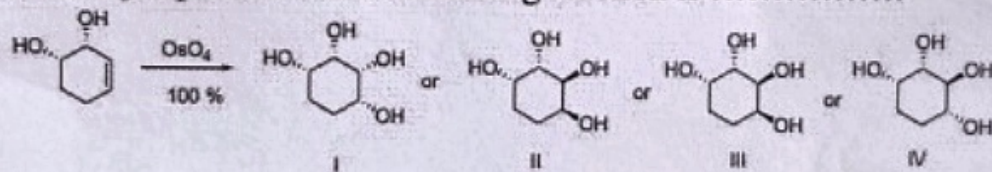
b. B

c. C

d. D

23. Question

- 23 The major product of the following reaction is .....



- I
- II
- III
- IV

a. A

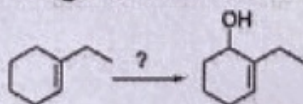
b. B

c. C

d. D

24. Question

- 24 The reagent used for the following transformation is .....



- LDA
- DCC
- LTA
- SeO<sub>2</sub>

a. A

b. B

c. C

d. D

25. Question



25 Ultrasound-assisted reactions generally occurs in the range of.....

- a. 20 Hz to 20 KHz
- b. Less than 20 Hz
- c. 20 KHz to 10 GHz
- d. More than 10 Ghz

a. A

b. B

c. C

d. D

161

161

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