

Unit 3 - WEEK 1: OXIDIZING AGENT IN ORGANIC TRANSFORMATION PART-I

Course outline

How to access the portal?

Week 0: Prerequisites

WEEK 1: OXIDIZING AGENT IN ORGANIC TRANSFORMATION PART-I

- Lec 1: CHROMIUM BASED REAGENTS FOR OXIDATION
- Lec 2: NON METAL BASED REAGENTS FOR OXIDATION
- Lec 3: ORGANIC PEROXIDES
- Quiz : Assignment 1
- Feedback form

Week 2 : OXIDIZING AGENT IN ORGANIC TRANSFORMATION PART-II

Week 3 : REDUCING AGENT IN ORGANIC TRANSFORMATION PART-I

Week 4 : REDUCING AGENT IN ORGANIC TRANSFORMATION PART-II

Week 5: ORGANIC TRANSFORMATIONS-USING NON-TRANSITION METALS PART-I

Live Session-1

Week 6: ORGANIC TRANSFORMATIONS-USING NON-TRANSITION METALS PART-II

Week 7: Organic Transformations-Using Non-Transition Metals Part-III

Week 8: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-I

Week 9: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-II

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Week 10 : ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-III

Week 11: ORGANIC TRANSFORMATIONS-USING TRANSITION METALS PART-IV

WEEK 12 : ORGANIC TRANSFORMATIONS-USING LANTHANIDES REAGENTS

Live Session-3

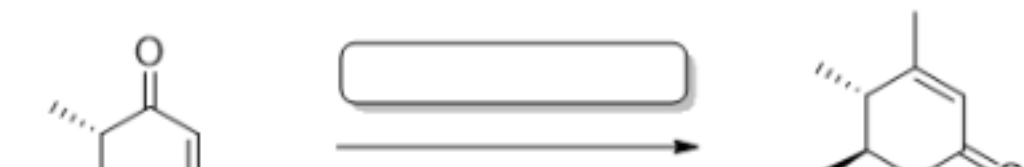
Assignment 1

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-08-14, 23:59 IST.

1) Find out the suitable reagent for the following transformation.

2 points



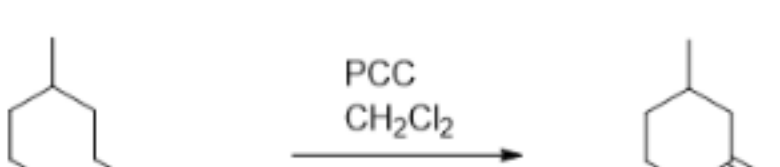
- (a) CH_3MgBr , PDC
- (b) CH_3MgBr , PCC
- (c) Me_2CuLi , PDC
- (d) PCC, CH_2Cl_2

No, the answer is incorrect. Score: 0

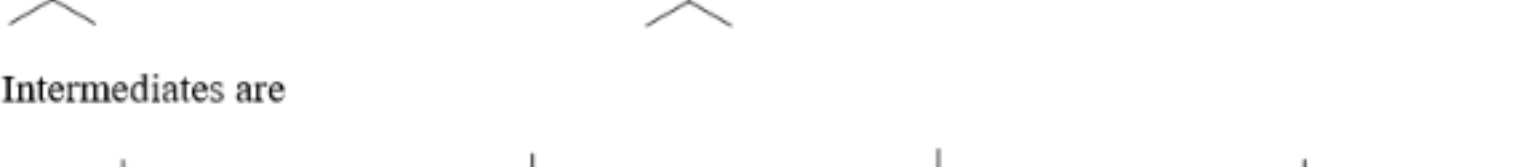
Accepted Answers: (a) CH_3MgBr , PDC

2) Consecutive intermediates in the progress of the reaction are

3 points



Intermediates are



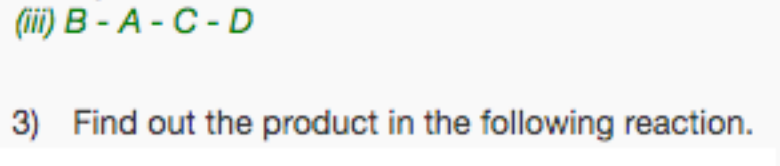
- (i) A - B - C - D
- (ii) B - C - A - D
- (iii) B - A - C - D
- (iv) D - C - B - A

No, the answer is incorrect. Score: 0

Accepted Answers: (iii) B - A - C - D

3) Find out the product in the following reaction.

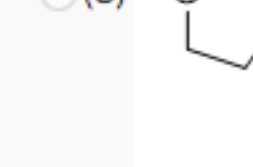
2 points



- (A)
- (B)
- (C)
- (D)

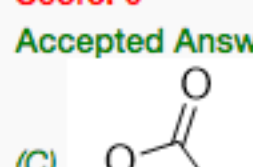
No, the answer is incorrect. Score: 0

Accepted Answers: (C)



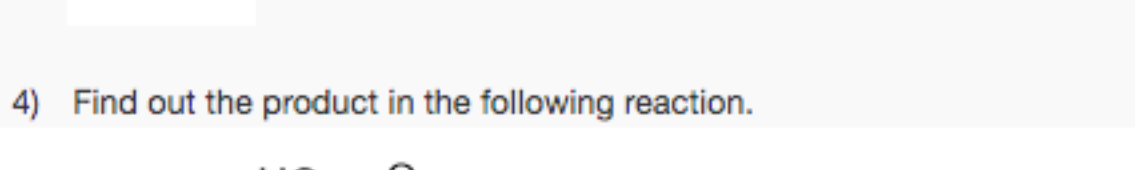
No, the answer is incorrect. Score: 0

Accepted Answers: (C)



4) Find out the product in the following reaction.

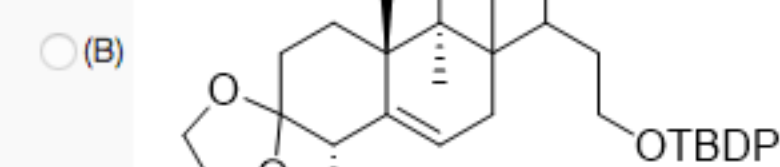
2 points



- (A)
- (B)
- (C)
- (D)

No, the answer is incorrect. Score: 0

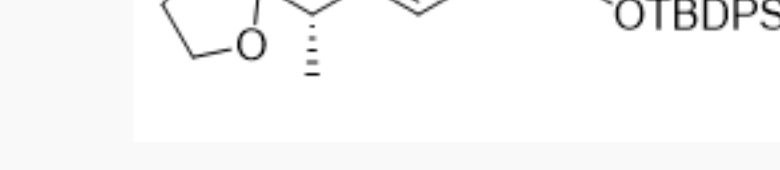
Accepted Answers: (B)



- (A)
- (B)
- (C)
- (D)

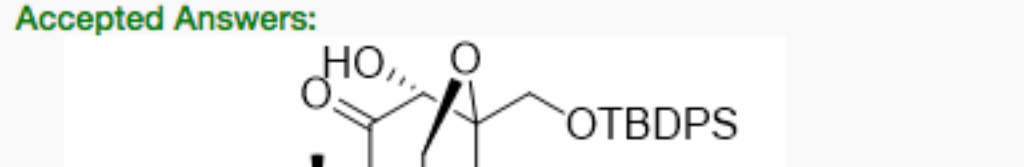
No, the answer is incorrect. Score: 0

Accepted Answers: (B)



5) Find out the suitable reagent for the following transformation.

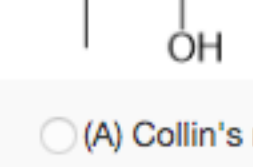
2 points



- (A) Collins's reagent
- (B) Moffatt oxidation
- (C) Swern oxidation
- (D) Jones oxidation

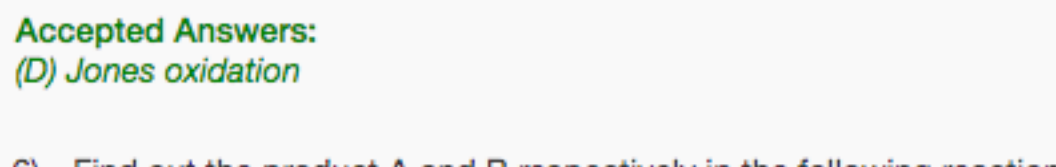
No, the answer is incorrect. Score: 0

Accepted Answers: (D) Jones oxidation



6) Find out the product A and B respectively in the following reaction

2 points



- (A)
- (B)
- (C)
- (D)

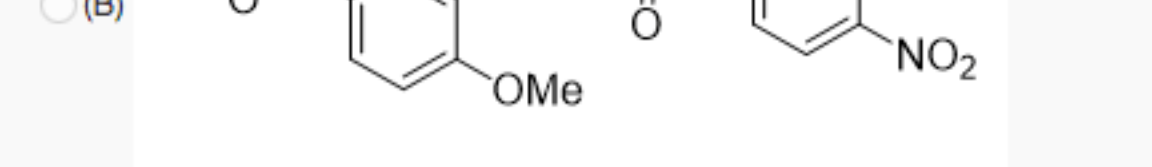
No, the answer is incorrect. Score: 0

Accepted Answers: (D)



7) Find out the appropriate DET for the fast reaction and product with stereochemistry.

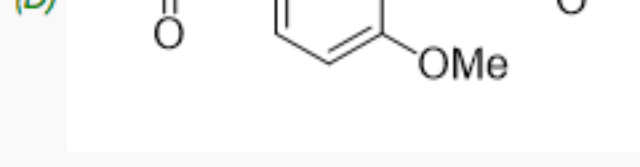
2 points



- (A) (-)-DET,
- (B) (-)-DET,
- (C) (+)-DET,
- (D) (+)-DET,

No, the answer is incorrect. Score: 0

Accepted Answers: (C) (+)-DET,



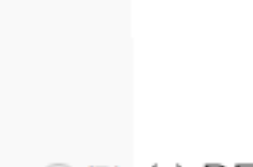
8) Assign True/False for the following statements: (i) If the oxidation number of carbon changes from +4 to -4 during the course of a reaction, it has been oxidised. Hydrogen is a good oxidising agent.

2 points

- a) True, True
- b) False, True
- c) False, False
- d) True, False

No, the answer is incorrect. Score: 0

Accepted Answers: c) False, False



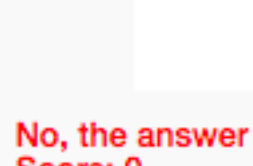
9) Tertiary alcohols are not easily oxidized. Secondary alcohols can be oxidized to aldehydes.

2 points

- a) True, False
- b) False, True
- c) True, True
- d) False, false

No, the answer is incorrect. Score: 0

Accepted Answers: a) True, False



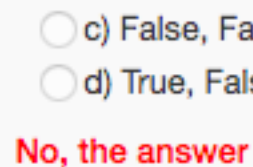
10) Thiols are easily oxidized to disulfides. Oxidation number of thiosulfate is +1.

2 points

- a) True, True
- b) False, True
- c) True, false
- d) False, false

No, the answer is incorrect. Score: 0

Accepted Answers: c) True, false



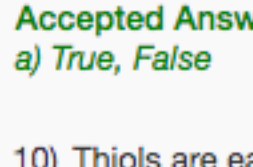
11) Primary alcohols can be oxidized either to aldehydes or carboxylic acids. Aldehydes are easier to oxidize than ketones.

2 points

- a) True, False
- b) False, False
- c) True, True
- d) False, True

No, the answer is incorrect. Score: 0

Accepted Answers: c) True, True

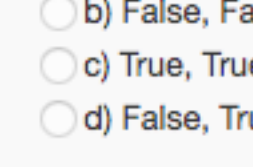


12) Determine the oxidation number of O: OF_2

Hint

No, the answer is incorrect. Score: 0

Accepted Answers: (Type: String) 2

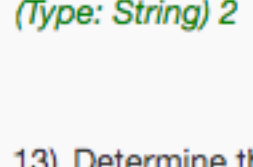


13) Determine the oxidation number of S: $\text{S}_4\text{O}_6^{2-}$

Hint

No, the answer is incorrect. Score: 0

Accepted Answers: (Type: String) 5/2



1 point