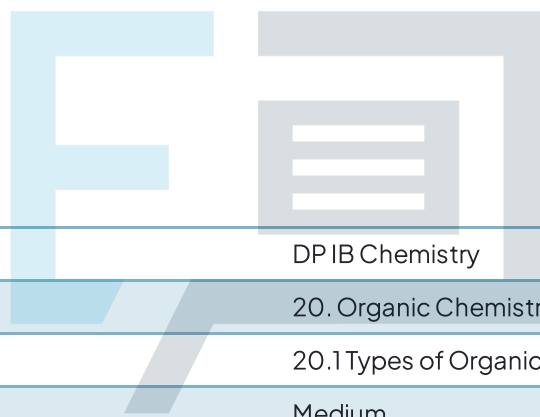




20.1 Types of Organic Reactions

Question Paper



Course	DP IB Chemistry
Section	20. Organic Chemistry (HL only)
Topic	20.1 Types of Organic Reactions
Difficulty	Medium

Exam Papers Practice

To be used by all students preparing for DP IB Chemistry HL
Students of other boards may also find this useful

Question 1

Which compound will react most readily by an S_N2 mechanism?

- A. $(CH_3)_3CBr$
- B. $CH_3CH_2CH_2CH_2Cl$
- C. $CH_3CH_2CH_2CH_2Br$
- D. $(CH_3)_3CCl$

[1 mark]

Question 2

An alkene, X, undergoes electrophilic addition with hydrogen bromide to form a halogenoalkane, Y, as the minor product.

The halogenoalkane, Y, can react with sodium hydroxide in aqueous conditions to form butan-1-ol.

What is the correct identity of the alkene, X?

- A. 2-methylpropene
- B. But-1-ene
- C. But-2-ene
- D. Pent-1-ene

[1 mark]

Exam Papers Practice

Question 3

Benzene can undergo nitration to form nitrobenzene. Which of the following statements is **not** correct?

- A. Concentrated nitric acid acts as a base
- B. A nitronium ion acts as an electrophile
- C. HSO_4^- is produced in the formation of the electrophile
- D. Aluminum chloride is required as a catalyst for the reaction

[1 mark]

Question 4

What is formed when butanone is heated under reflux with a solution of NaBH_4 ?

- A. $\text{CH}_3\text{CH}_2\text{CHCH}_2$
- B. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$
- C. $\text{CH}_3\text{CHOHCH}_2\text{CH}_3$
- D. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CHO}$

[1 mark]

Question 5

Which solvent is aprotic?

- A. H_2O
- B. $\text{C}_6\text{H}_5\text{CH}_3$
- C. CH_3OH
- D. CH_3NH_2

[1 mark]



Exam Papers Practice