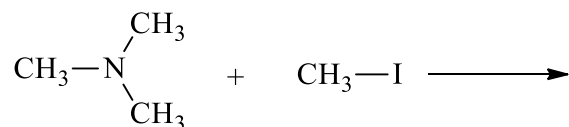
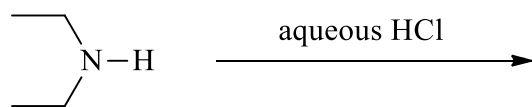


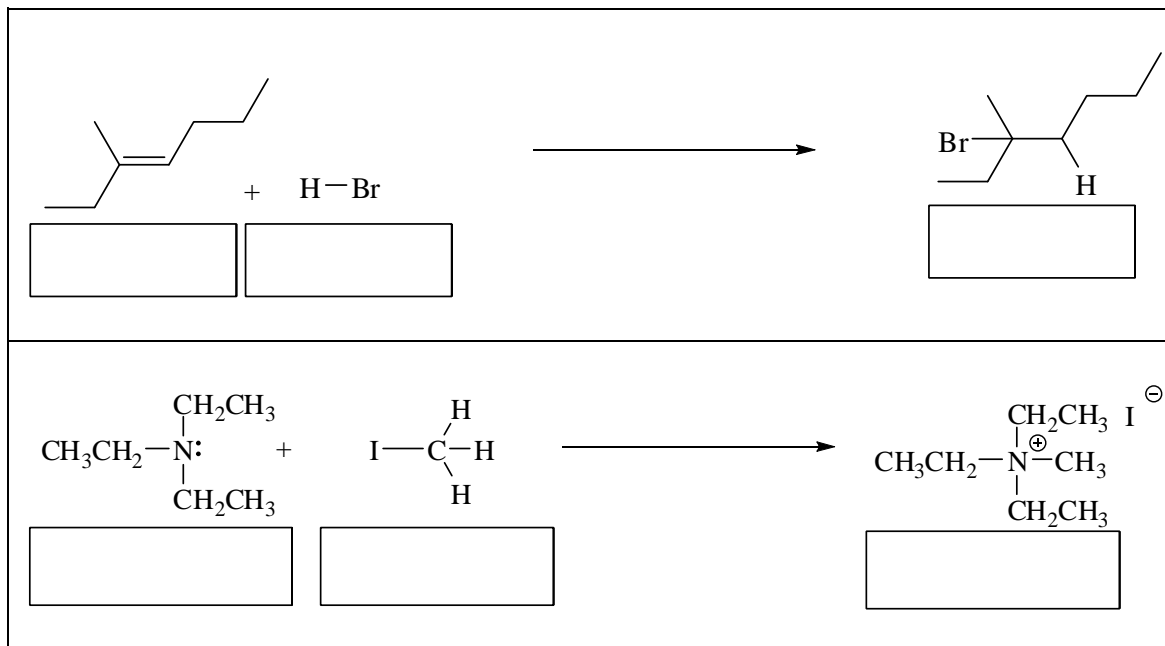
Marks
2

- Give the major organic product(s) from the following reactions. Pay particular attention to the stereochemistry and/or the correct ionic form where relevant.



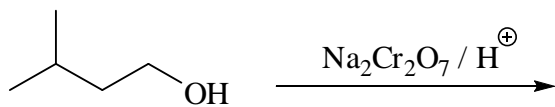
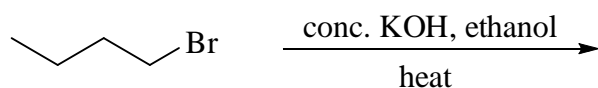
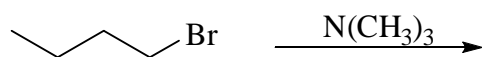
Marks
5

- Classify the starting materials for each of the following reactions as nucleophile or electrophile in the boxes provided. Classify the products of the reactions as primary (1°), secondary (2°), tertiary (3°) or quaternary (4°) in the boxes provided.



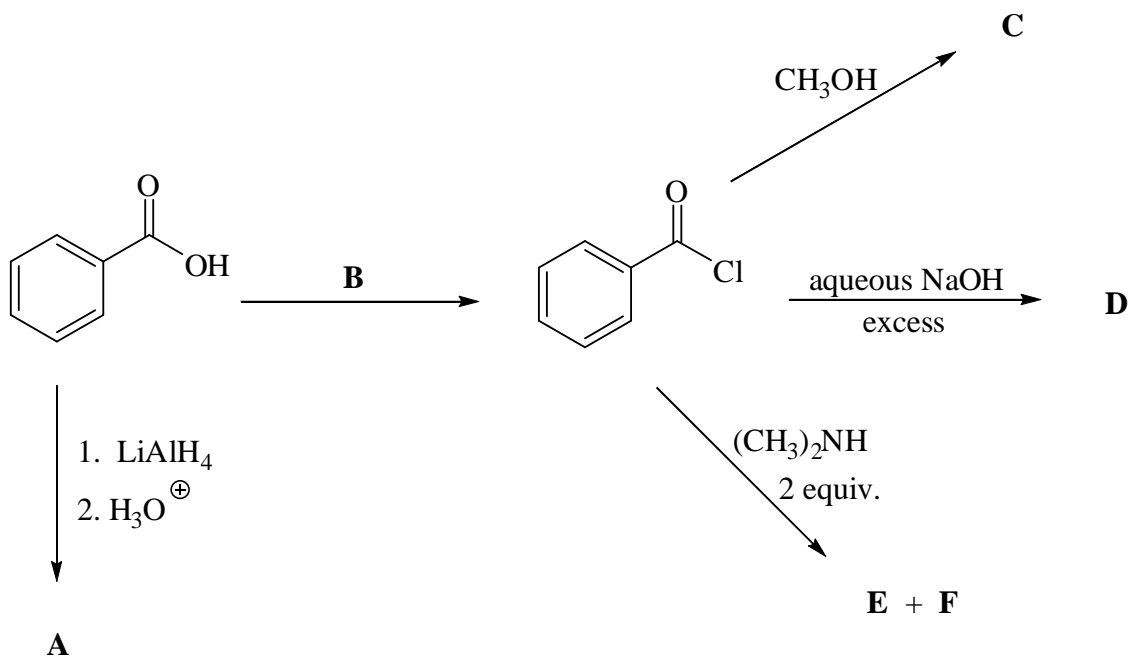
Marks
5

- Give the name of the starting material where indicated and the constitutional formula of the major organic product formed in each of the following reactions.

**Name:****Name:**

Marks
6

- Consider the following reaction sequence.

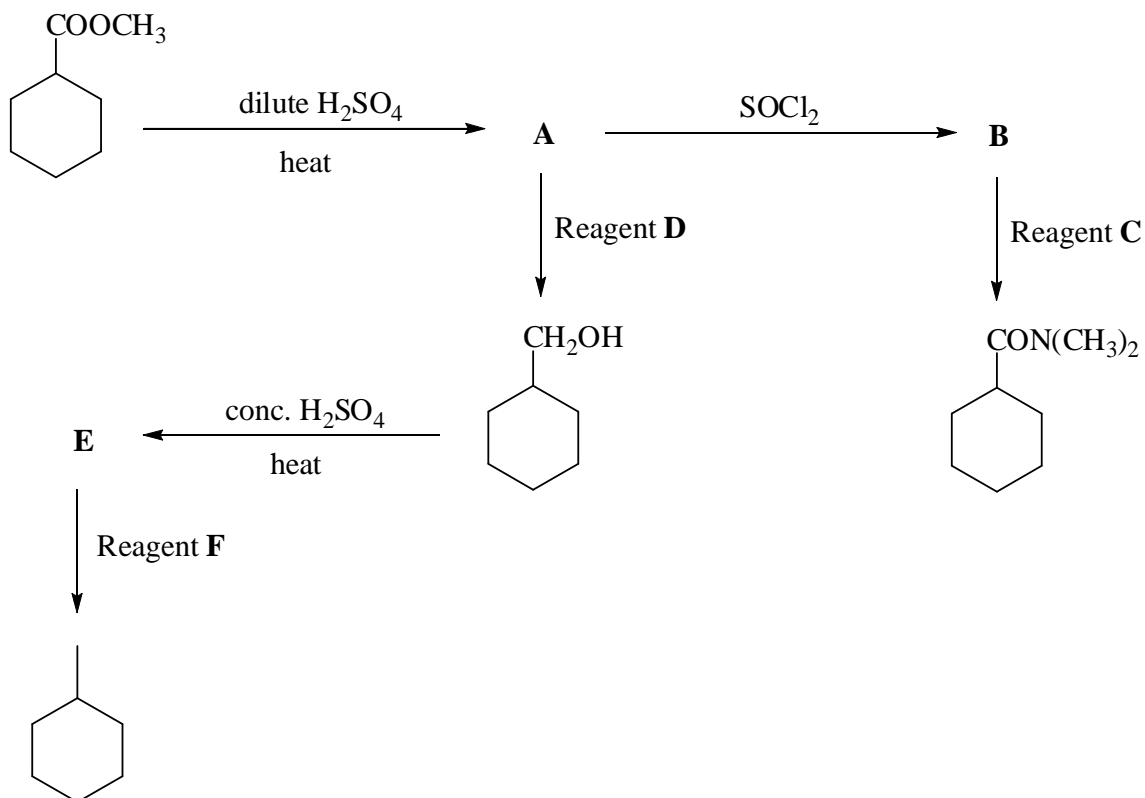


Give the reagent **B** and draw the constitutional formulas of the major organic products, **A**, **C**, **D**, **E** and **F**, formed in these reactions.

A	D
B	E
C	F

Marks
6

- Consider the following reaction sequence.

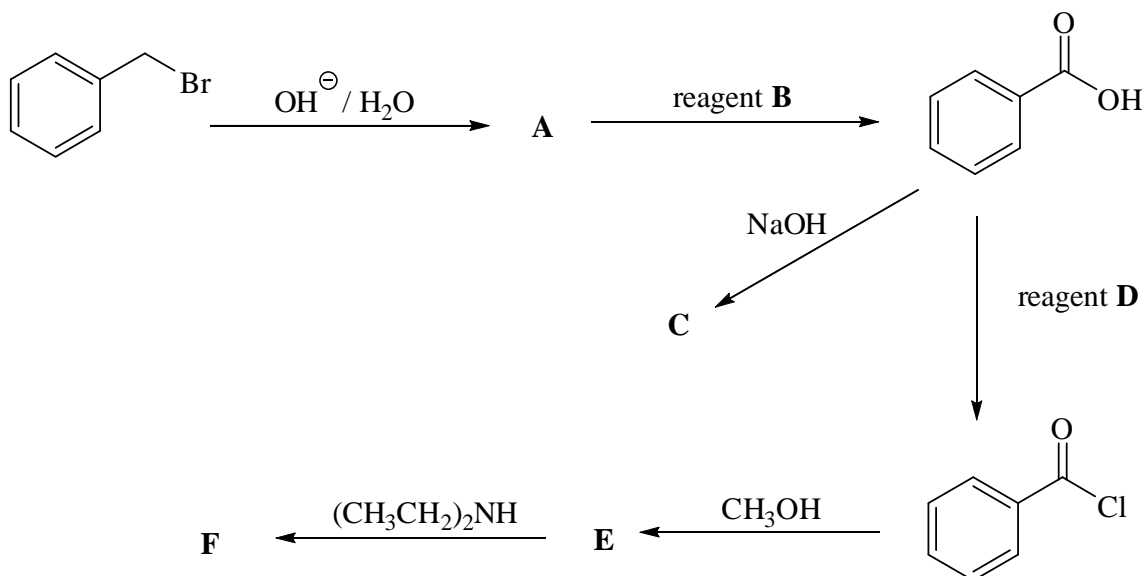


Give the reagents **C**, **D** and **F** and draw the structures of the major organic products, **A**, **B** and **E**, formed in these reactions.

A	D
B	E
C	F

Marks
6

- Consider the following reaction sequence.

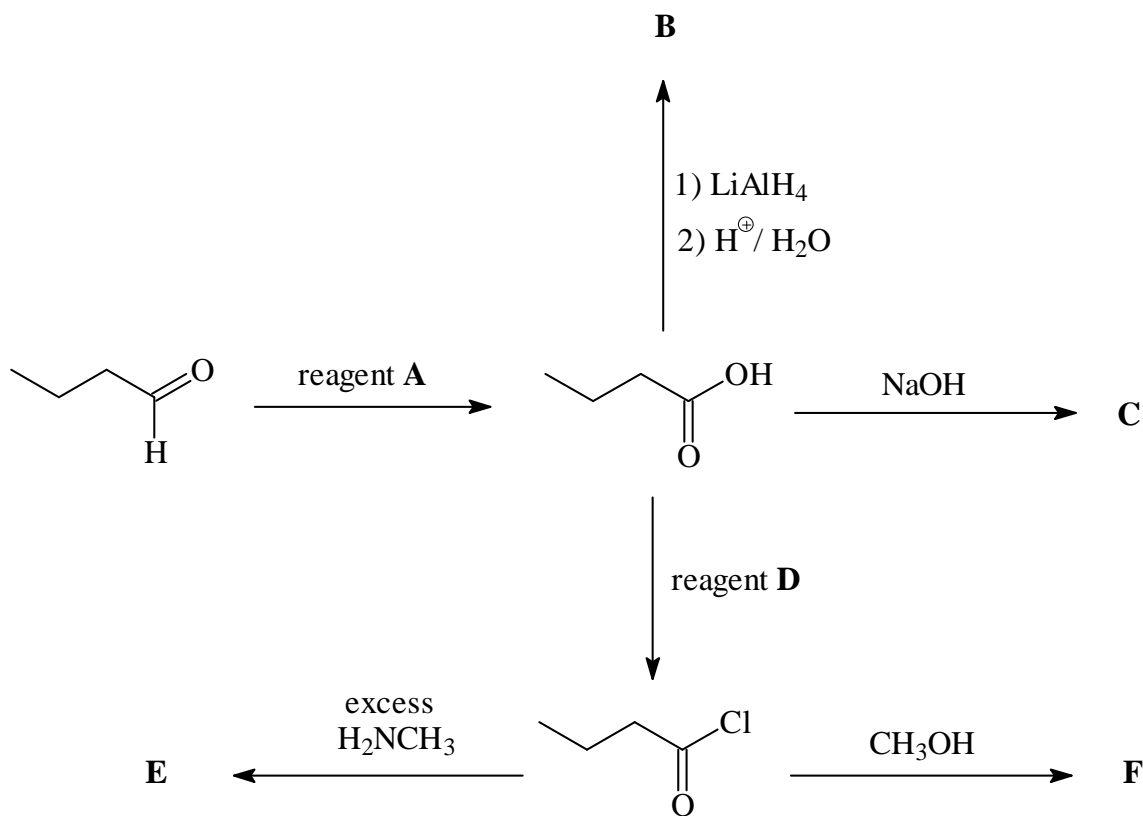


Give the reagents **B** and **D** and draw the structures of the major organic products, **A**, **C**, **E** and **F**, formed in these reactions.

A	D
B	E
C	F

Marks
6

- Consider the following reaction sequence.

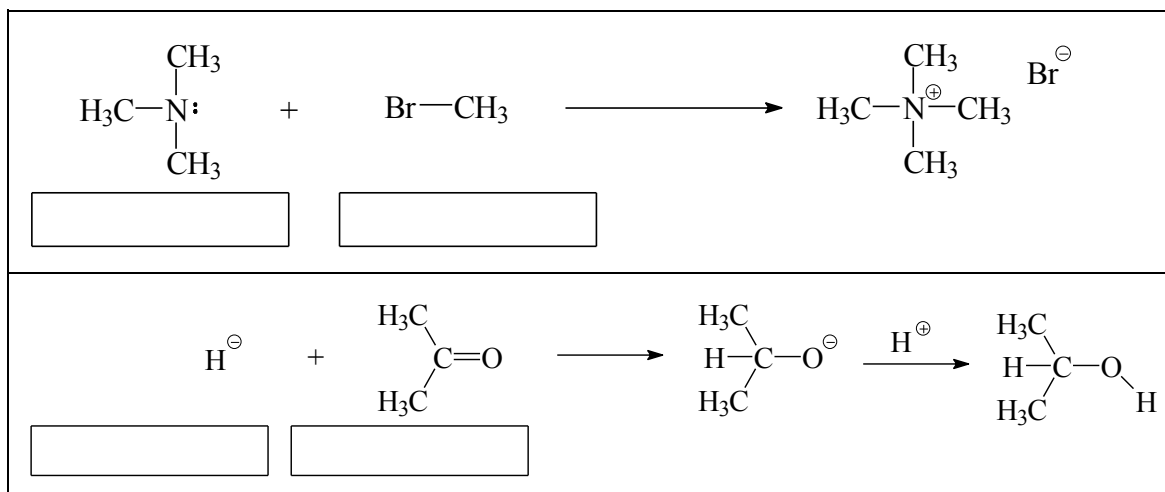


Give the reagents **A** and **D** and draw the structures of the major organic products, **B**, **C**, **E** and **F**, formed in these reactions.

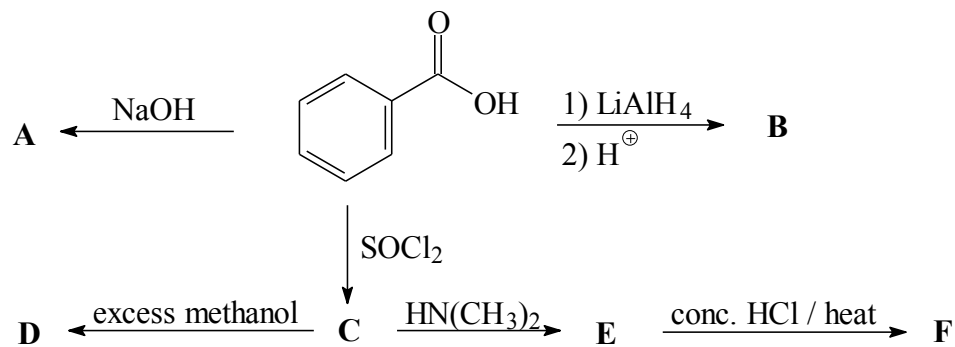
A	D
B	E
C	F

Marks
4

- Classify the starting materials of the following reactions as nucleophile or electrophile and indicate with δ^{\oplus} and δ^{\ominus} the polarisation of the C–Br and C=O bonds.


6

- Consider the following reaction sequence.



Draw the structures of the major organic products, A-F, formed in these reactions.

A	D
B	E
C	F