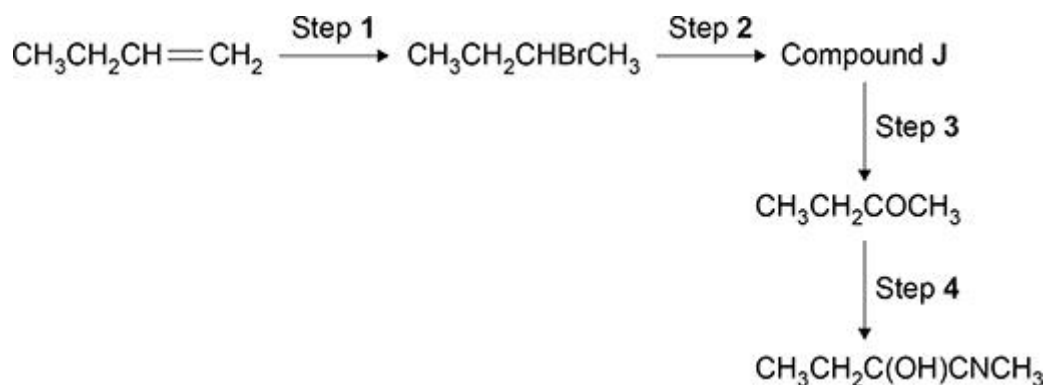


Q1.

This question is about an organic synthesis.



- (a) Name the mechanism in Step 1.

State the reagent(s) used for Step 1.

Name of mechanism _____

Reagent(s) _____

(2)

- (b) Identify compound J.

State the reagent(s) and conditions needed for Step 2.

Compound J _____

Reagent(s) and conditions _____

(2)

- (c) State the reagent(s) used for Step 4.

Outline the mechanism for Step 4.

Reagent(s) _____

Mechanism

(5)

- (d) Explain why Step 4 produces a racemic mixture.

(3)

(Total 12 marks)