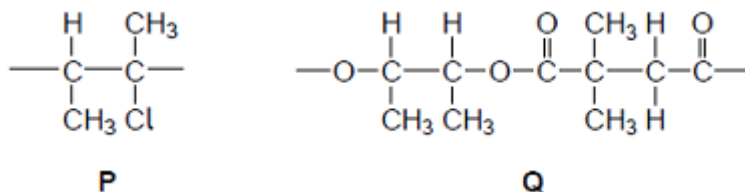


Name of the Student: _____

Max. Marks : 16 Marks

Time : 16 Minutes

Q1.

Repeating units of two polymers, **P** and **Q**, are shown in the figure below.

- (a) Draw the structure of the monomer used to form polymer **P**.
Name the type of polymerisation involved.

Monomer

Type of polymerisation

(2)

- (b) Draw the structures of **two** compounds that react together to form polymer **Q**.

Structure of compound 1

Structure of compound 2

(2)

- (c) Suggest an environmental advantage of polymer **Q** over polymer **P**.
Justify your answer.

Advantage _____

Justification _____

(3)

(Total 7 marks)

Q2.

But-1-ene reacts with a reagent of the form HY to form a saturated compound.

- (a) Suggest a reagent of the form HY which reacts with but-1-ene.

(1)

- (b) Name and draw a mechanism for the reaction in part (a).

Name of mechanism _____

Mechanism

(5)

- (c) Explain how three isomeric products are formed when HY reacts with but-1-ene.

(3)

(Total 9 marks)