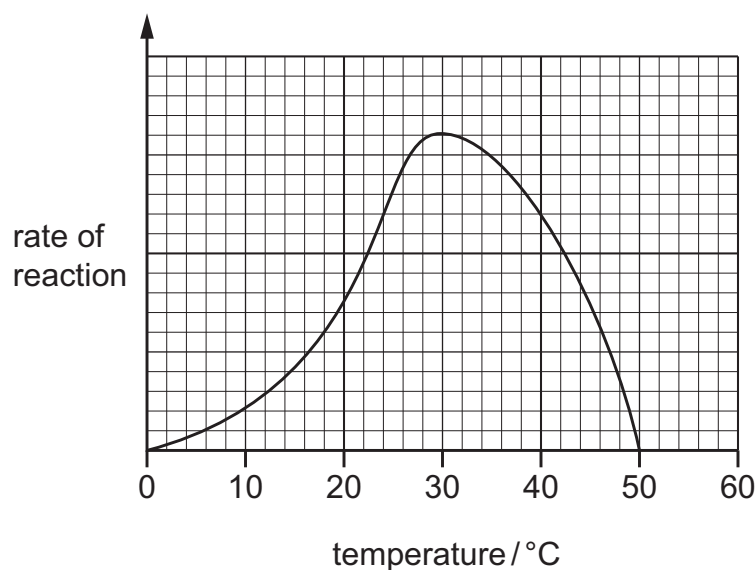


7 The graph shows the effect of temperature on an enzyme-controlled reaction.



Which statement describes the effect of temperature on this reaction?

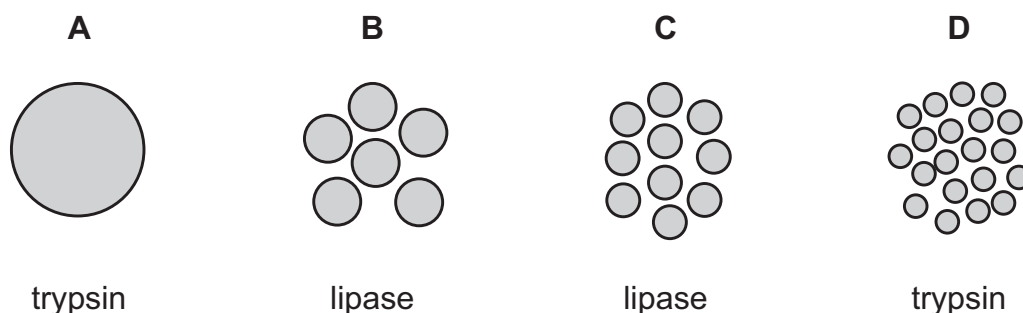
- A As the temperature increases to 25 °C, the reaction speeds up.
- B Between 10 °C and 20 °C, the enzyme denatures.
- C Between 35 °C and 45 °C, frequency of effective collisions increases.
- D The optimum temperature for this reaction is 40 °C.

6 Which substance is an enzyme?

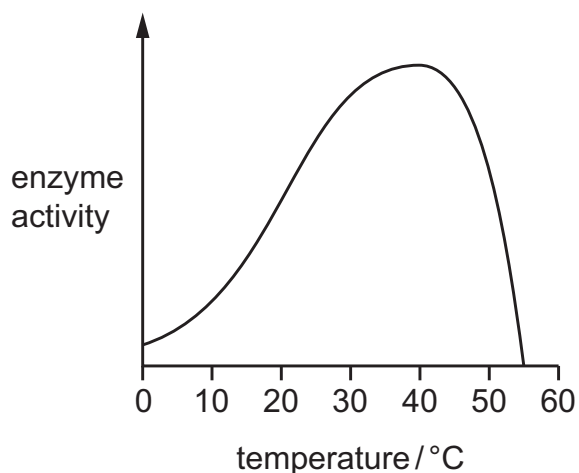
- A fibrinogen
- B mRNA
- C pepsin
- D saliva

7 The diagrams show the same mass of oil arranged in drops of different sizes at the same temperature.

In which combination of oil drop size and enzyme will the oil be digested the fastest?



7 The graph shows how enzyme activity is affected by temperature.



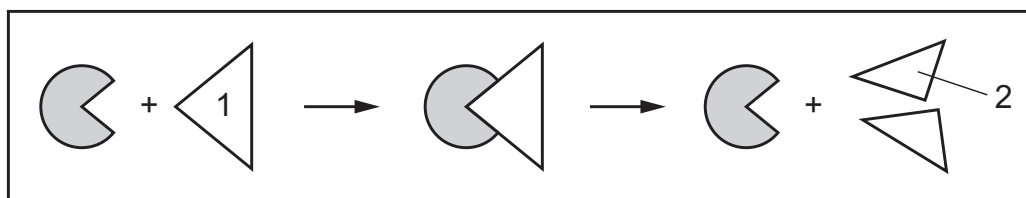
Why is enzyme activity lower at 55 °C than it is at 40 °C?

- A Heat has killed the enzyme.
- B The enzyme has been used up.
- C The reactants are moving faster.
- D The substrate is less likely to fit into the active site.

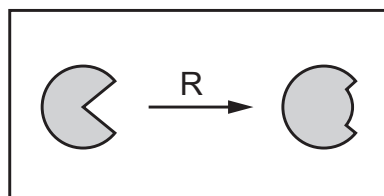
8 What is the correct definition of enzymes?

- A carbohydrates that act as biological catalysts
- B carbohydrates that act as substrates
- C proteins that act as biological catalysts
- D proteins that act as substrates

5 The diagram shows a process involving an enzyme in the human stomach.



The diagram shows another process, R, that affects this enzyme.



Which row identifies the substrate and the cause of process R?

|          | substrate | cause of process R  |
|----------|-----------|---------------------|
| <b>A</b> | 1         | acidic conditions   |
| <b>B</b> | 1         | alkaline conditions |
| <b>C</b> | 2         | acidic conditions   |
| <b>D</b> | 2         | alkaline conditions |

9 Which statement describes enzymes?

- A** Enzymes are carbohydrates.
- B** Enzymes are involved in metabolic reactions.
- C** Enzymes decrease the rate of reaction.
- D** Enzymes have the same shape of active site as their substrate.