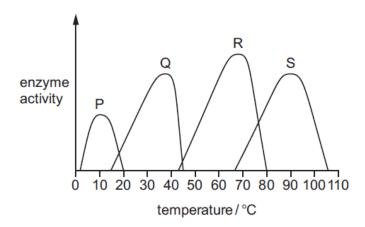
### Enzymes – 2023 November IGCSE 0610

### 1. Nov/2023 /Paper\_ 0610/11/No.10

The graph shows the effect of temperature on the activity of four different enzymes.



Which conclusion about the data in the graph is correct?

- A Enzyme P and enzyme Q are both active at 25 °C.
- **B** Enzyme R and enzyme S are both active at 75 °C.
- C Enzyme P has an optimum temperature of 0 °C.
- D Enzyme S has an optimum temperature above 100 °C

### 2. Nov/2023 /Paper\_ 0610/11/No.12

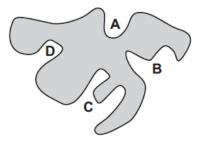
Which colour does hydrogencarbonate indicator turn if the carbon dioxide concentration is increased?

- A green
- **B** red
- C violet
- **D** yellow

### 3. Nov/2023 /Paper 0610/13/No.10

The diagrams represent an enzyme and its substrate.

Which part of the enzyme molecule is the active site for this substrate?



enzyme



substrate

# **4.** Nov/2023 /Paper\_ 0610/13/No.10

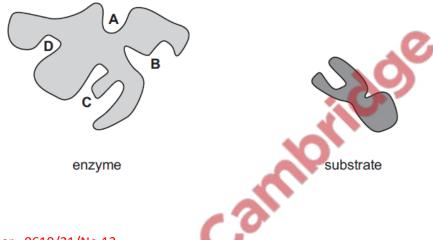
Which statement is correct?

- A The active site of an enzyme has the same shape as the substrate.
- **B** The active site is not affected by changes in temperature.
- **C** The shape of the active site of an enzyme is complementary to its substrate.
- **D** The substrate and product combine at the active site.

### **5.** Nov/2023 /Paper\_ 0610/21/No.10

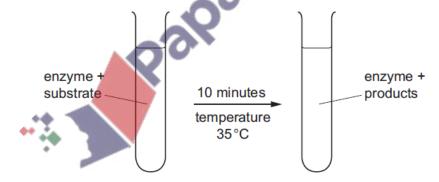
The diagrams represent an enzyme and its substrate.

Which part of the enzyme molecule is the active site for this substrate?



### **6.** Nov/2023 /Paper\_ 0610/21/No.12

The diagram shows a test-tube at the start and at the end of an enzyme experiment.



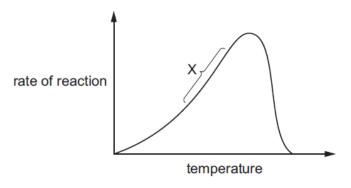
At the end of the experiment, the mixture in the test-tube contains glycerol.

Which row correctly identifies the enzyme and the substrate it acts on?

	enzyme	substrate it acts on
Α	amylase	fat
В	amylase	glucose
С	lipase	fat
D	lipase	glucose

# **7.** Nov/2023 /Paper\_ 0610/23/No.10

The graph shows the effect of temperature on the rate of a reaction catalysed by an enzyme.



Which statement explains the shape of the graph at section X?

- The enzyme is **not** the correct one to act on this substrate.
- The enzyme is starting to denature. В
- С The number of active sites is increasing.
- Paloa Calillo The frequency of enzyme-substrate collisions is increasing. D