



CHEMISTRY ONLINE
— **TUITION** —

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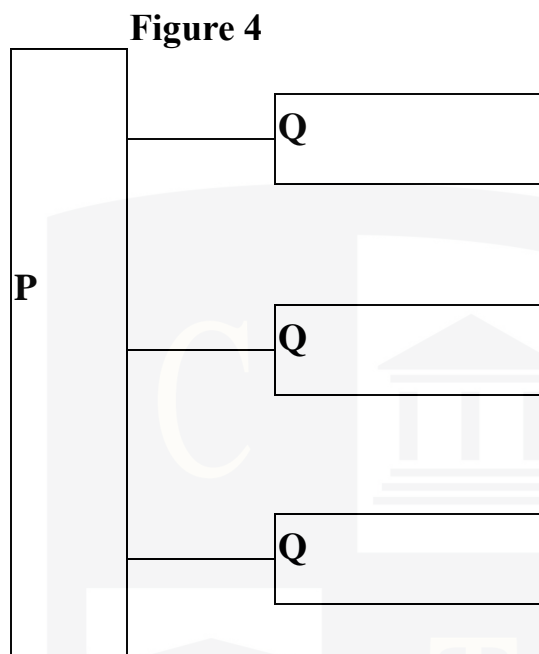
BIOLOGY

BIOLOGICAL MOLECULES

LEVEL & BOARD:	AQA (A - LEVEL)
TOPIC:	Lipid
PAPER TYPE:	QUESTION PAPER - 1
TOTAL QUESTIONS	02
TOTAL MARKS	12

Lipids 1

1. **Figure 4** shows a triglyceride.



(a) Identify the chemicals shown in Figure 4 by:

[2 marks]

Box **P**

Box **Q**

(b) In Figure 4, what kind of relationship does P and Q have?

[1 mark]

(c) Describe the procedure you would follow to check a liquid sample for lipids and how you would know whether the test was successful.

[2 marks]

2.

(a) Explain the differences between the structures of triglyceride and phospholipid molecules.

[1 mark]

(b) Describe the procedure you would use to check a food sample for the presence of a lipid.

[2 marks]

(c) Triglycerides with a high percentage of saturated fatty acids can be found in animal fats. Absorption of the byproducts of fat digestion can raise the risk of obesity in persons who consume too much fat. Triglycerides can be replaced in food with fat replacements to aid in weight loss.

Describe the differences between saturated and unsaturated fatty acids.

[1 mark]

The structure of a fat substitute is shown in Figure 1.

Figure 1



(d) Lipase cannot break down this fat substitute in the digestive tract.
Suggest why?

[2 marks]

(e) Lipids make up this fat replacement. Despite being a lipid, it is unable to pass through the cell membranes of the stomach lining cells.

Explain why it can't get through the cell's surface membranes. [1 mark]



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- Founder & CEO of Chemistry Online Tuition Ltd.
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