

# 2.2 Carbohydrates & Lipids

## Question Paper

|            |                            |
|------------|----------------------------|
| Course     | DP IB Biology              |
| Section    | 2. Molecular Biology       |
| Topic      | 2.2 Carbohydrates & Lipids |
| Difficulty | Easy                       |

**Time allowed:** 10  
**Score:** /5  
**Percentage:** /100

### Question 1

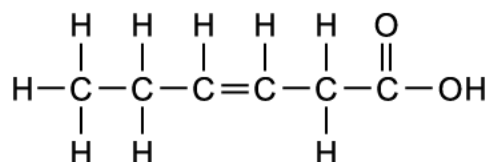
Which of the following bonds link two monosaccharides together to form a disaccharide?

- A. Hydrogen
- B. Ester
- C. Glycosidic
- D. Peptide

[1 mark]

### Question 2

The diagram below shows a component of a triglyceride.



Which of the following correctly identifies this component?

- A. Saturated fatty acid
- B. Monounsaturated fatty acid
- C. Polyunsaturated fatty acid
- D. Phospholipid

[1 mark]

### Question 3

Which of the following features **does not** explain why lipids are excellent long-term storage compounds?

- A. They can be saturated or unsaturated
- B. Less body mass is required to store a given amount of energy
- C. They are insoluble and will not affect the osmolarity of the cell
- D. Lipids are energy dense molecules

[1 mark]

#### Question 4

Which of the following are involved in the formation of lipids?

- I. condensation
  - II. amino acids
  - III. hydrolysis
  - IV. fatty acids
- A. I and II
  - B. I and IV
  - C. II and III
  - D. II, III and IV

[1 mark]

#### Question 5

Which of the following is **not** an example of a useful feature of molecular visualisation software?

- A. Molecules of cellulose, starch and glycogen can be rotated to view their 3D structure
- B. Visual comparisons can be made between the structure of cellulose, starch and glycogen
- C. The specific function of cellulose, starch and glycogen can be displayed
- D. The appearance of the atoms in the molecules can be changed

[1 mark]