EXAM PAPERS PRACTICE

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Detailed mark scheme

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Level: SL IB in Biology
Subject: Biology
Topic: IB SL Biology
Type: Topic Question


All International Baccalaureate IB Topic Questions SL Biology

# BIOLOGY

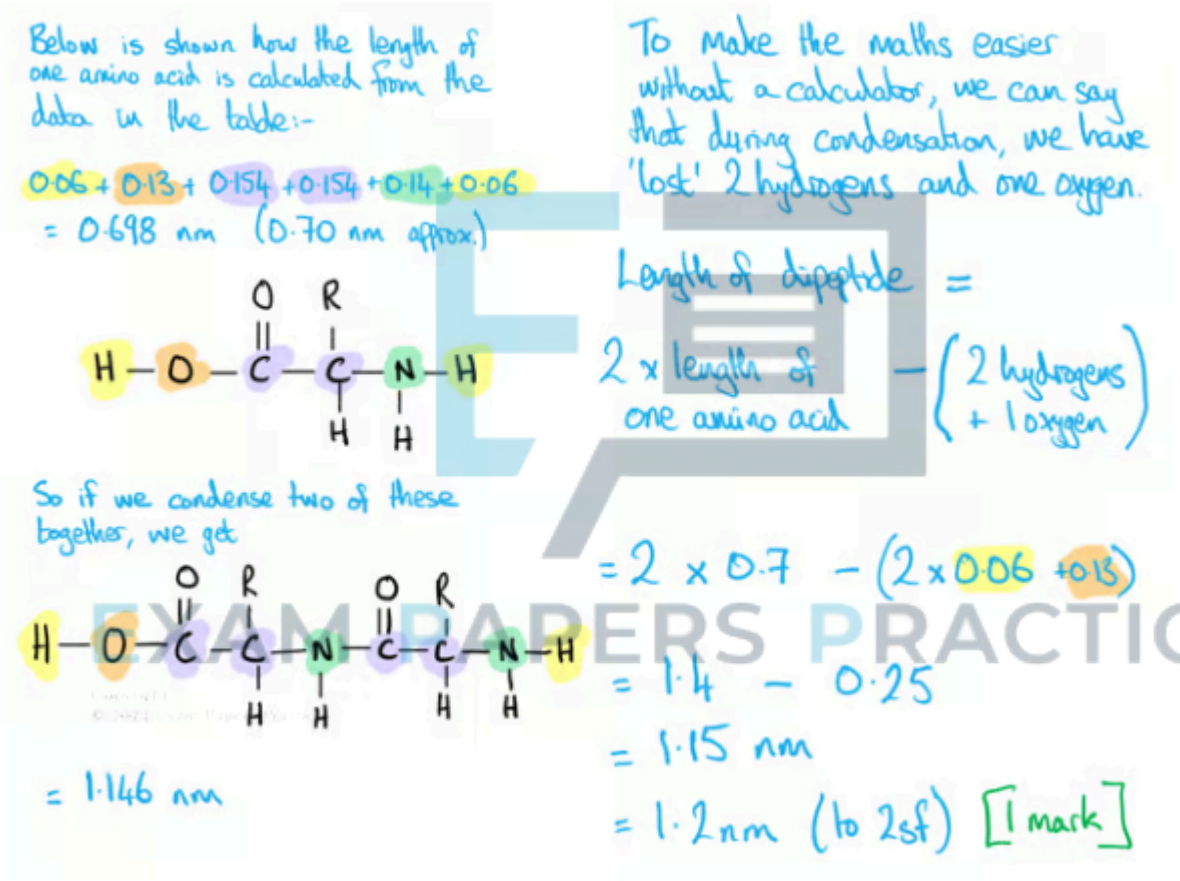
# SL - IB

## Key skills

# Mark Scheme

## Answer 1

The correct answer is B.




## Answer 2

The correct answer is A because this is a hydroxyl group. Hydroxyl groups are present in some R groups (e.g. in serine) but are never bonded directly to the central carbon.

The four groups that bond to the central carbon atom are: -NH2, -COOH, -H and the variable group-R.

**Answer 3**

The correct answer is B because, to be soluble in water, a polypeptide (or any molecule) must have amino acids with polar side chains on its surface that can hydrogen bond with water.

A is incorrect because very large (long) polypeptides are able to dissolve if they have polar amino acids on their surface.

Cis incorrect because being insoluble makes fibrous polypeptides good for structural roles but being structural does not cause a polypeptide to be insoluble.

Dis incorrect because the number of polypeptide chains in a protein does not affect its solubility.



**Answer 4**

The correct answer is B.

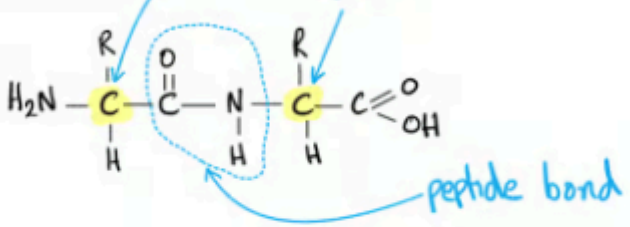
Haemoglobin does not feature in the correct answer because it is made up of four polypeptide chains.

**Answer 5**

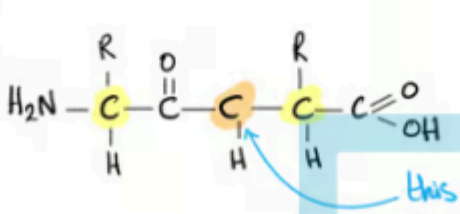
The correct answer is A.

Identify the central carbon of each amino acid (highlighted below in yellow); this will allow you to spot errors (highlighted below in orange) in the surrounding atoms/bonds.

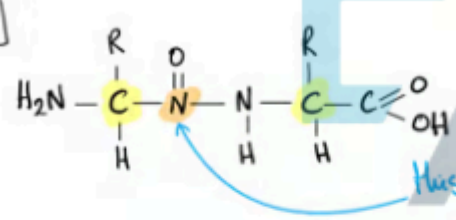
A




B




C

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