



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level and Advanced Level

BIOLOGY

9700/12

Paper 1 Multiple Choice

October/November 2009

1 hour

Additional Materials: Multiple Choice Answer Sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)



READ THESE INSTRUCTIONS FIRST

Write in soft pencil.

Do not use staples, paper clips, highlighters, glue or correction fluid.

Write your name, Centre number and candidate number on the Answer Sheet in the spaces provided unless this has been done for you.

There are **forty** questions on this paper. Answer **all** questions. For each question there are four possible answers **A, B, C** and **D**.

Choose the **one** you consider correct and record your choice in **soft pencil** on the separate Answer Sheet.

Read the instructions on the Answer Sheet very carefully.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

This document consists of **16** printed pages.



1 Which cell structure can be seen only with an electron microscope?

- A cell surface membrane
- B chromosome
- C nucleolus
- D vacuole

2 Which is a feature of all prokaryotic cells?

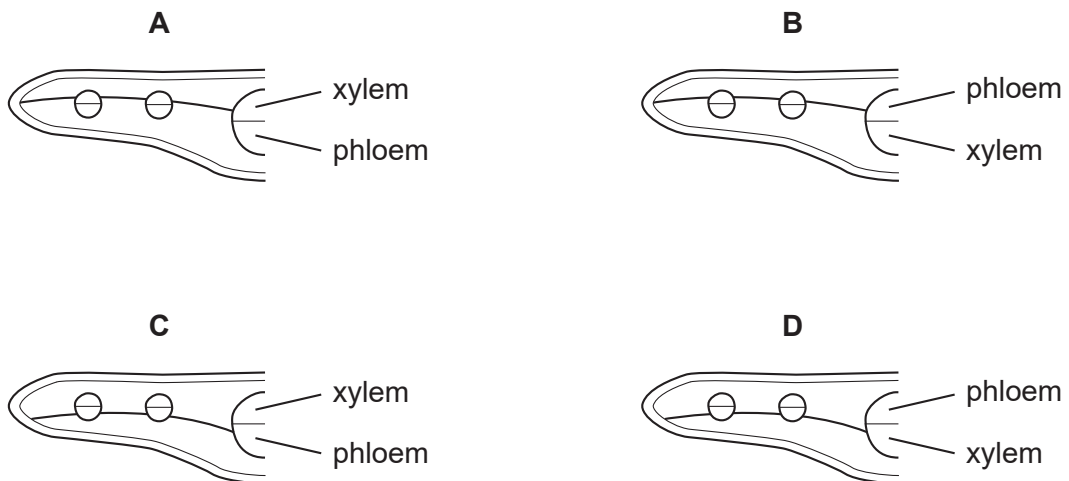
- A absence of cell surface membrane
- B division by mitosis
- C presence of cellulose cell wall
- D presence of ribosomes

3 A lymphocyte has a diameter of 1×10^{-2} millimetres (mm).

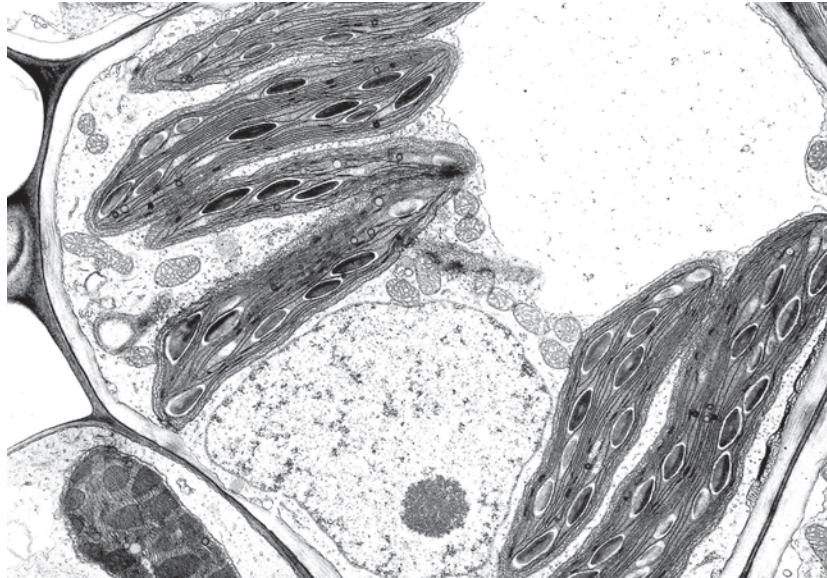
What is the diameter in nanometres (nm)?

- A 1×10^1
- B 1×10^2
- C 1×10^3
- D 1×10^4

4 Which plan diagram of a transverse section of a leaf correctly shows the position of xylem and phloem as well as the fact that the palisade mesophyll is twice as thick as the spongy mesophyll?



- 5 The photomicrograph of a cell has a 2 cm scale line labelled 5 μm .



5 μm

What is the magnification of the photomicrograph?

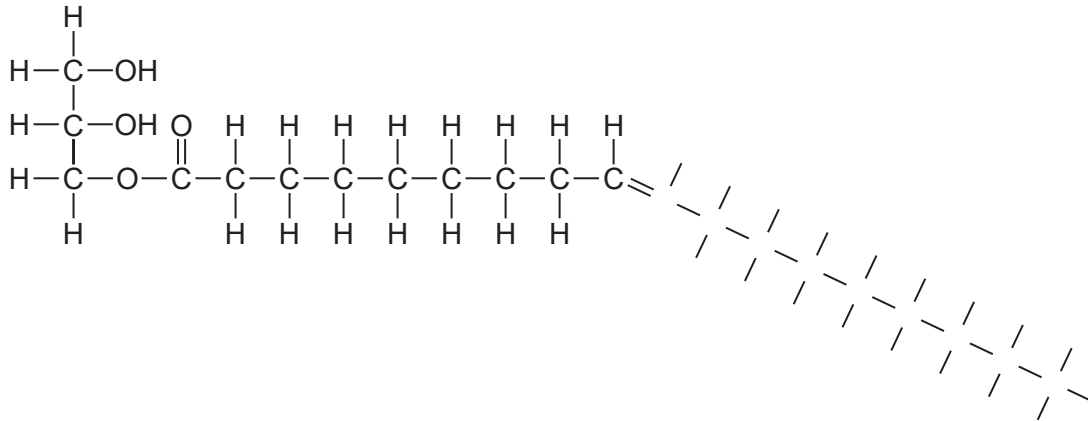
- A 1×10^3 B 2×10^3 C 4×10^3 D 5×10^3
- 6 What is a function of the smooth endoplasmic reticulum?
- A protein synthesis
 B protein transport
 C steroid synthesis
 D steroid transport
- 7 Which combination of bond types correctly shows the weak and strong bonds that hold a molecule of protein in shape?

	types of bond		
	hydrogen	disulfide	ionic
A	strong	strong	weak
B	strong	weak	strong
C	weak	strong	strong
D	weak	strong	weak

8 Which statement is true for cellulose, but **not** true for protein?

- A It is found in cell surface membranes.
- B It is synthesised from identical sub-units.
- C It is used as an energy source.
- D It may be a structural component.

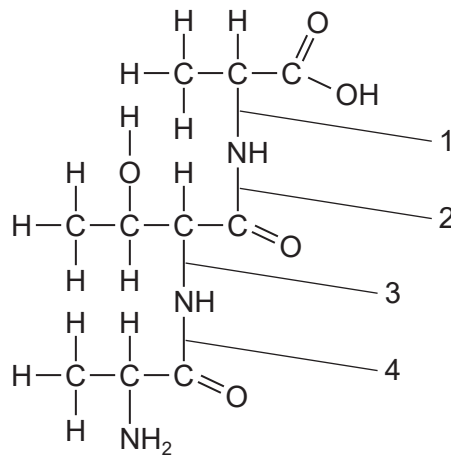
9 The diagram shows a triglyceride molecule that has been partially hydrolysed.



What will be the products of the total hydrolysis of the molecule shown?

- A a molecule of glycerol and a saturated fatty acid molecule only
- B a molecule of glycerol and an unsaturated fatty acid molecule only
- C a molecule of water, a molecule of glycerol and a saturated fatty acid molecule
- D a molecule of water, a molecule of glycerol and an unsaturated fatty acid molecule

10 The diagram shows a tripeptide molecule.



At which two points will hydrolysis occur to release three amino acids?

- A 1 and 2
- B 1 and 3
- C 2 and 3
- D 2 and 4

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/537052011024006141>