

1.2 Cells as the Basic Units of Living Organisms

Question Paper

Course	CIE A Level Biology (9700) exams from 2022
Section	1. Cell Structure
Topic	1.2 Cells as the Basic Units of Living Organisms
Difficulty	Easy

Time allowed: 10

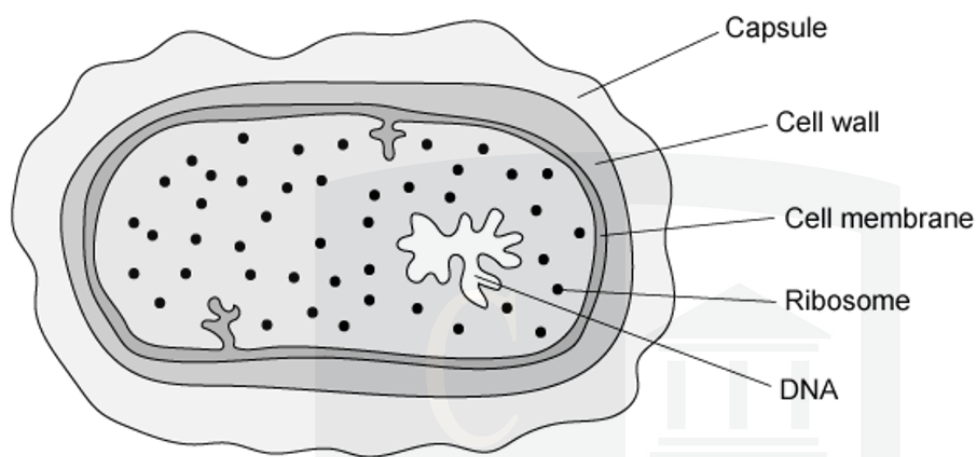
Score: /10

Percentage: /100

CHEMISTRY ONLINE
TUITION

Question 1

The diagram shows a type of prokaryotic cell, a bacterium.



Which three structures are found in both an animal cell and this bacterium cell?

- A** cell membrane, cell wall and DNA
- B** cell membrane, DNA and ribosome
- C** capsule, DNA and ribosome
- D** capsule, cell membrane and cell wall

[1 mark]

CHEMISTRY ONLINE
— TUITION —

Question 2

Which of the following structures are found in typical eukaryotic cells?

- 1 circular DNA
- 2 linear DNA (chromosomes)
- 3 80S ribosomes
- 4 70S ribosomes

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

[1 mark]

Question 3

What is the role of the nucleolus?

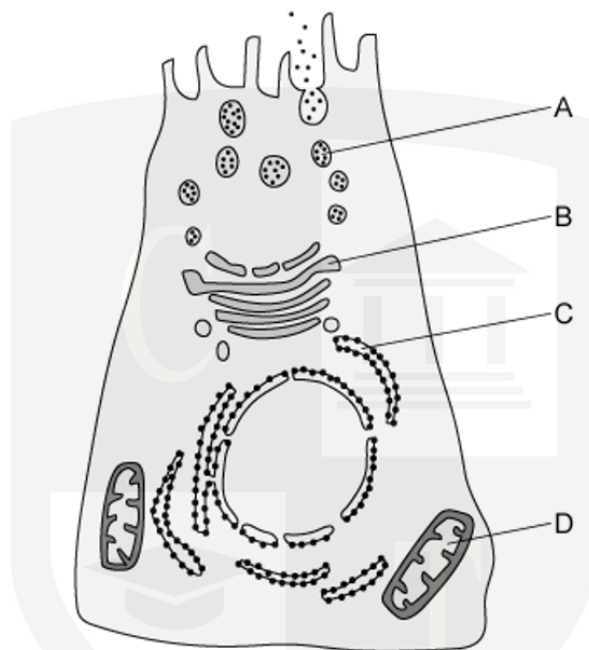
- A** The synthesis of rRNA.
- B** The synthesis of ribosomal proteins.
- C** The formation and breakdown of the nuclear envelope.
- D** The formation of the rough endoplasmic reticulum.

[1 mark]

Question 4

The diagram shows a cell that secretes enzymes.

Where are the enzymes made?



[1 mark]

Question 5

Which feature would identify an organism as a prokaryote?

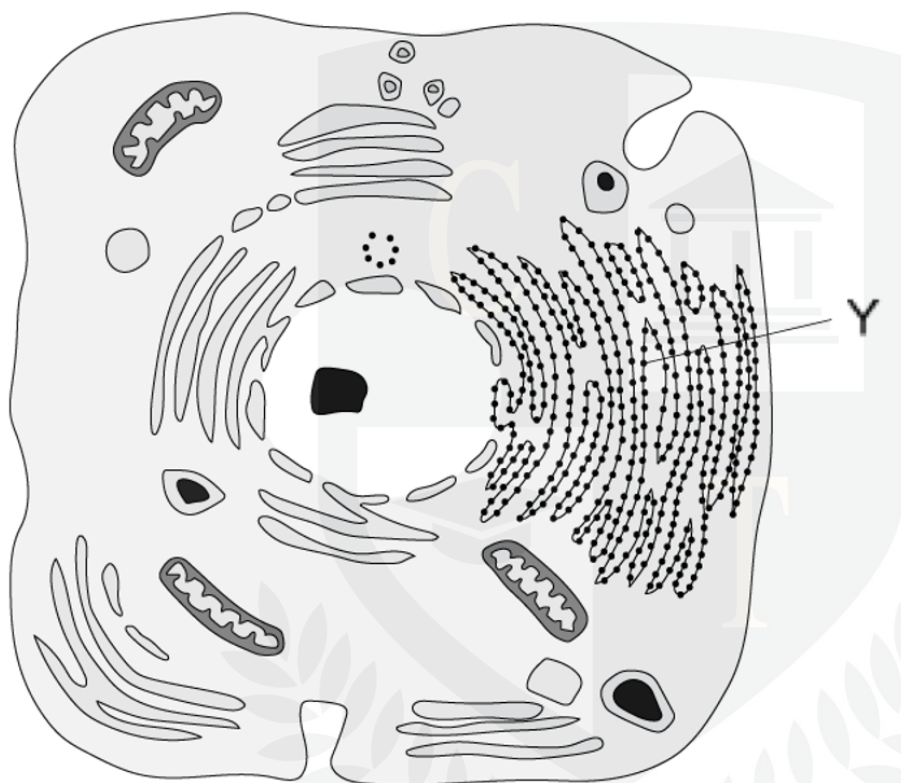
- 1 cell wall
- 2 circular DNA
- 3 cell membrane
- 4 ribosomes

A 2 and 4 **B** 1 and 3 **C** 1 only **D** 2 only

[1 mark]

Question 6

The diagram shows drawing of an electron micrograph of an animal cell.



What is the function of the membrane system labelled Y?

- A protein synthesis
- B protein synthesis and transport
- C lipid synthesis
- D lipid synthesis and transport

[1 mark]

Question 7

What structures are always found in prokaryotic cells?

- A flagella
- B capsules
- C ribosomes
- D pili

[1 mark]

Question 8

Which of the structures below are found in a typical plant cell?

	centrioles	cilia	mitochondria	vacuole
A	X	✓	✓	X
B	X	X	✓	✓
C	✓	✓	X	X
D	X	X	X	✓

Key: ✓ = present, X = absent

[1 mark]

Question 9

What is the role of the smooth endoplasmic reticulum?

- A enzyme synthesis
- B protein synthesis
- C steroid synthesis
- D antibody synthesis

[1 mark]

Question 10

Which structure is found in all eukaryotic cells, but is not found in prokaryotic cells?

- A Chromatin
- B cell wall
- C Plasmid
- D 70S ribosome

[1 mark]

CHEMISTRY ONLINE
— TUITION —