

1.2 Cells as the Basic Units of Living Organisms

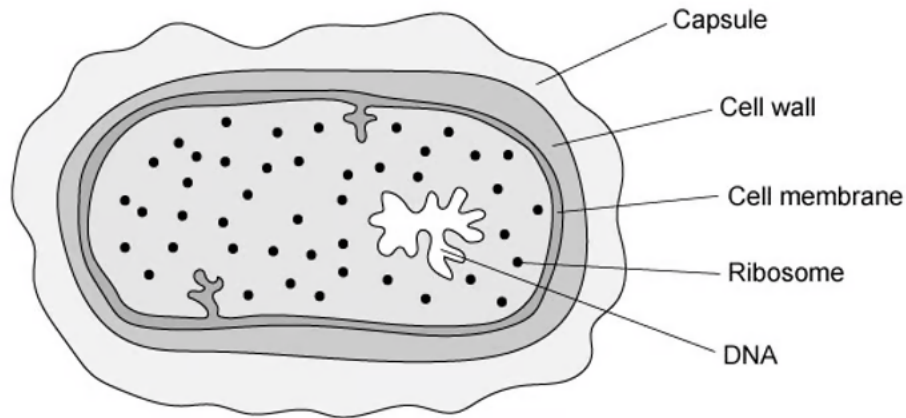
Question Paper

Course	CIEA Level Biology
Section	1. Cell Structure
Topic	1.2 Cells as the Basic Units of Living Organisms
Difficulty	Easy

Time allowed: 20
Score: /10
Percentage: /100

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]

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?

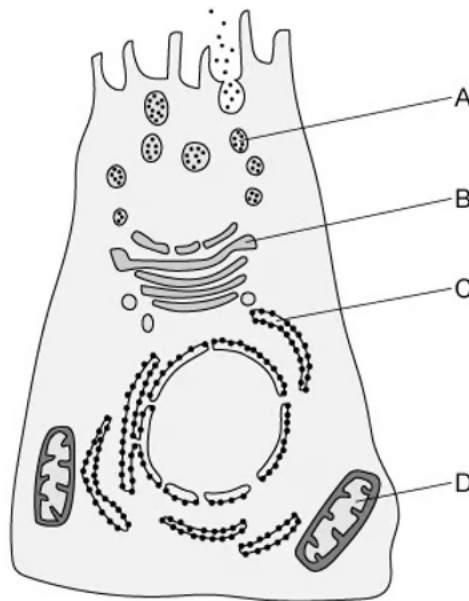
- A. The synthesis of rRNA.
- B. The synthesis of ribosomal proteins.
- C. The formation and breakdown of the nuclear envelope.
- D. The formation of the rough endoplasmic reticulum.

[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

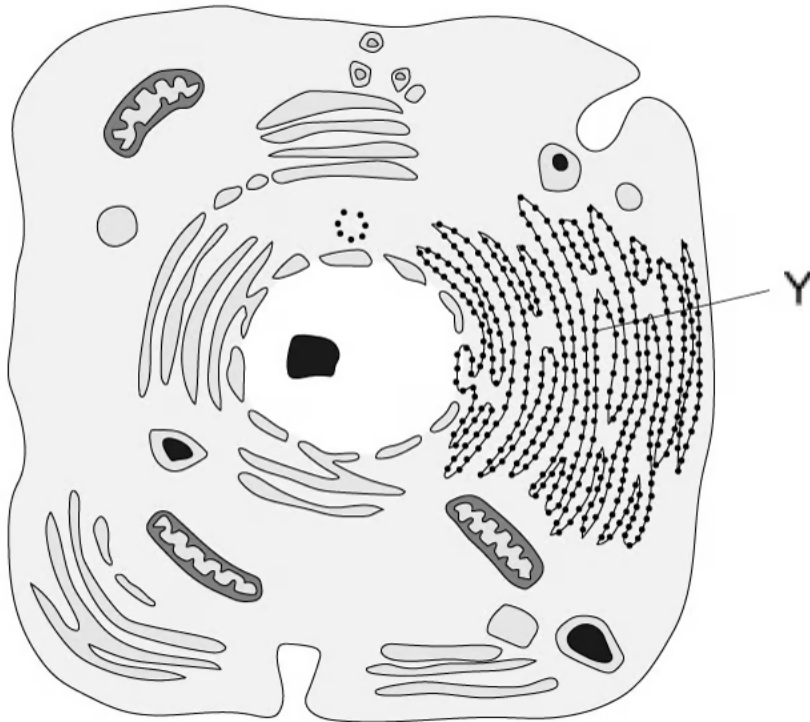
C. 1 only

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]