

Smart Edu Hub / Smart Exam Resources

9700 / CAIE A level Biology / Paper-1/ Multiple Choice
Questions

1.2.24-Structural-Features-of-Prokaryotic- Cells-Bacterium-Set-1-qp

Total Questions: 13

Questions

Question 1:

Which features enable an organism to be identified as a prokaryote?

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

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

Question 2:

Which of the following are found in both eukaryotic and prokaryotic cells?

- 1 cellulose
- 2 deoxyribose
- 3 lipids
- 4 ribose

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

Question 3:

In general, eukaryotic cells undergo division much slower than prokaryotic cells.

What is the reason for this?

- A** Eukaryotes break down the nuclear membrane during mitosis.
- B** Eukaryotes have many more mitochondria than prokaryotes.
- C** Prokaryotes do not contain any centrioles.
- D** Prokaryotic cells are a lot smaller than eukaryotic cells.

Questions (Continued)

Question 4:

What is the diameter of a typical prokaryote, such as *Streptococcus*?

- A $7.5 \times 10^1 \text{ nm}$
- B $7.5 \times 10^2 \text{ nm}$
- C $7.5 \times 10^0 \mu\text{m}$
- D $7.5 \times 10^1 \mu\text{m}$

Question 5:

Which cell components are present in **all** prokaryotic cells?

	cell surface membrane	cell wall	endoplasmic reticulum	flagellum
A	✓	✓	x	✓
B	✓	x	✓	x
C	✓	✓	x	x
D	x	✓	✓	✓

key

✓ = present

x = not present

Question 6:

Which processes occur in eukaryotes and prokaryotes?

- 1 hydrolysis
- 2 mitosis
- 3 transcription
- 4 translation

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

Questions (Continued)

Question 7:

In general, eukaryotic cells undergo division much slower than prokaryotic cells.

What is the reason for this?

- A Eukaryotes break down the nuclear membrane during mitosis.
- B Eukaryotes have many more mitochondria than prokaryotes.
- C Prokaryotes do not contain any centrioles.
- D Prokaryotic cells are a lot smaller than eukaryotic cells.

Question 8:

Cells consist of a number of different components.

Which row shows the components present (✓) in both a prokaryotic and eukaryotic cell?

	lysosomes	Golgi apparatus	ribosomes	cell surface membrane
A		✓		✓
B	✓	✓		
C			✓	✓
D	✓		✓	

Questions (Continued)

Question 9:

What are the characteristics of a prokaryotic cell?

	DNA structure	endoplasmic reticulum	plasmids	ribosomal size
A	circular	absent	present	small
B	circular	present	absent	large
C	linear	absent	present	small
D	linear	present	absent	large

Question 10:

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

Questions (Continued)

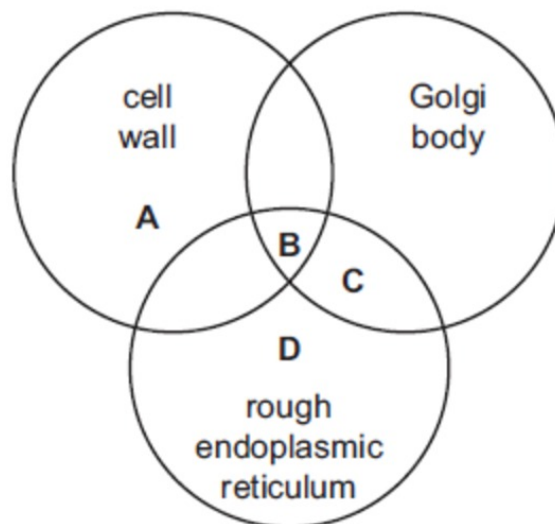
Question 11:

What is correct for a typical prokaryotic cell?

	cell wall	cell diameter	ribosomes
A	cellulose	1-5 μm	70S
B	cellulose	5-40 μm	70S and 80S
C	peptidoglycan	1-5 μm	70S
D	peptidoglycan	5-40 μm	70S and 80S

Question 12:

What is present in a *Vibrio cholerae* cell?



Questions (Continued)

Question 13:

Which structures are found in both typical eukaryotic cells and typical prokaryotic cells?

- 1 70S ribosomes
- 2 80S ribosomes
- 3 circular DNA

A 1, 2 and 3 B 1 and 3 only C 1 only D 2 only