

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-2-qp

Total Questions: 11

Questions

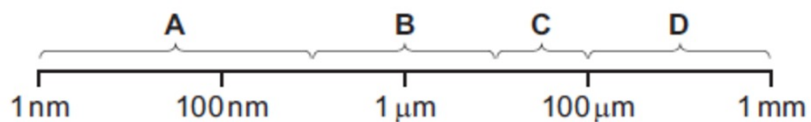
Question 1:

Which of the structures are found in photosynthetic prokaryotes?

- 1 cell surface membrane
 - 2 cellulose wall
 - 3 mesosomes
 - 4 ribosomes
 - 5 chloroplasts
- A 1, 2, 3 and 4 only
- B 1, 2, 4 and 5 only
- C 1, 3 and 4 only
- D 2, 3 and 5 only

Question 2:

Which size range would include most prokaryotic cells?



Questions (Continued)

Question 3:

What are always present in prokaryote cells?

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

Question 4:

Which statement describes how the DNA of eukaryotes differs from that of prokaryotes?

- A It has a nuclear envelope around it and is a double helix.
- B It has a nuclear envelope around it and is circular.
- C It has proteins attached to it and is a double helix.
- D It has proteins attached to it and is linear.

Question 5:

Which is a correct comparison between a typical prokaryotic cell and a typical eukaryotic cell?

	prokaryote	eukaryote
A	circular DNA only	linear DNA only
B	naked DNA	DNA associated with protein
C	rough endoplasmic reticulum present	smooth endoplasmic reticulum and rough endoplasmic reticulum present
D	ribosomes approximately 22nm diameter	ribosomes approximately 18nm in diameter

Questions (Continued)

Question 6:

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 7:

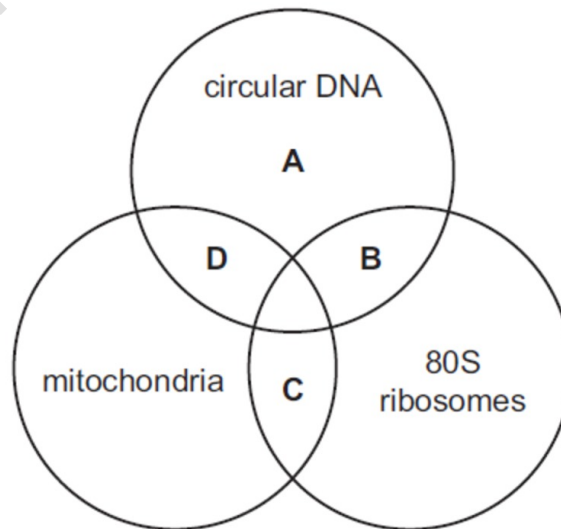
What is the diameter of a typical prokaryote, such as *Streptococcus*?

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

Questions (Continued)

Question 8:

Which structures are present in a *Vibrio cholerae* cell?



Question 9:

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)

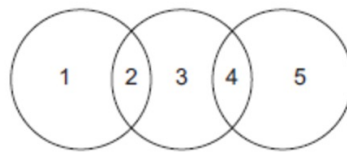
Question 10:

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 11:

The diagram shows some similarities between chloroplasts, mitochondria and typical prokaryotes.



Which row is correct?

	1	2	3	4	5
A	chloroplasts	circular DNA	mitochondria	linear DNA	prokaryotes
B	mitochondria	70S ribosomes	chloroplasts	linear DNA	prokaryotes
C	mitochondria	linear DNA	chloroplasts	70S ribosomes	prokaryotes
D	prokaryotes	70S ribosomes	mitochondria	70S ribosomes	chloroplasts