

Biology 22  
Prokaryotes  
Bacteria  
and Archaea  
MCQ

Author: OpenStax College

Published 2015

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## 4. Chapter: Biology 22 Prokaryotes Bacteria and Archaea MCQ

### 1. Biology 22 Prokaryotes Bacteria and Archaea MCQ Questions

4.1.1. The first forms of life on Earth were thought to be\_\_\_\_\_.

Author: OpenStax College

The first forms of life on Earth were thought to be\_\_\_\_\_.

Please choose only one answer:

- single-celled plants
- prokaryotes
- insects
- large animals such as dinosaurs

Check the answer of this question online at QuizOver.com:

Question: [The first forms of life on Earth were OpenStax College Biology 22](#)

Flashcards:

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#### 4.1.2. Microbial mats \_\_\_\_\_.

Author: OpenStax College

Microbial mats \_\_\_\_\_.

Please choose only one answer:

- are the earliest forms of life on Earth
- obtained their energy and food from hydrothermal vents
- are multi-layered sheet of prokaryotes including mostly bacteria but also archaea
- all of the above

Check the answer of this question online at QuizOver.com:

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### 4.1.3. The first organisms that oxygenated the atmosphere were

Author: OpenStax College

The first organisms that oxygenated the atmosphere were

Please choose only one answer:

- cyanobacteria
- phototrophic organisms
- anaerobic organisms
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [The first organisms that oxygenated the OpenStax College Biology](#)

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4.1.4. Halophiles are organisms that require\_\_\_\_\_.

Author: OpenStax College

Halophiles are organisms that require\_\_\_\_\_.

Please choose only one answer:

- a salt concentration of at least 0.2 M
- high sugar concentration
- the addition of halogens
- all of the above

Check the answer of this question online at QuizOver.com:

Question: [Halophiles are organisms that require . OpenStax College Biology](#)

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#### 4.1.5. The presence of a membrane-enclosed nucleus is a characteristic of ...

Author: OpenStax College

The presence of a membrane-enclosed nucleus is a characteristic of \_\_\_\_\_.

Please choose only one answer:

- prokaryotic cells
- eukaryotic cells
- all cells
- viruses

Check the answer of this question online at QuizOver.com:

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#### 4.1.6. Which of the following consist of prokaryotic cells?

Author: OpenStax College

Which of the following consist of prokaryotic cells?

Please choose only one answer:

- bacteria and fungi
- archaea and fungi
- protists and animals
- bacteria and archaea

Check the answer of this question online at QuizOver.com:

Question: [Which of the following consist of prokaryotic OpenStax College Biology](#)

Flashcards:

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#### 4.1.7. The cell wall is \_\_\_\_\_.

Author: OpenStax College

The cell wall is \_\_\_\_\_.

Please choose only one answer:

- interior to the cell membrane
- exterior to the cell membrane
- a part of the cell membrane
- interior or exterior, depending on the particular cell

Check the answer of this question online at QuizOver.com:

Question: [The cell wall is . OpenStax College Biology 22 Prokaryotes Bacteria](#)

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4.1.8. Organisms most likely to be found in extreme environments are \_\_\_\_\_...

Author: OpenStax College

Organisms most likely to be found in extreme environments are \_\_\_\_\_.

Please choose only one answer:

- fungi
- bacteria
- viruses
- archaea

Check the answer of this question online at QuizOver.com:

Question: [Organisms most likely to be found in OpenStax College Biology 22](#)

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#### 4.1.9. Prokaryotes stain as Gram-positive or Gramnegative because of diffe...

Author: OpenStax College

Prokaryotes stain as Gram-positive or Gramnegative because of differences in the cell \_\_\_\_\_.

Please choose only one answer:

- wall
- cytoplasm
- nucleus
- chromosome

Check the answer of this question online at QuizOver.com:

Question: [Prokaryotes stain as Gram-positive or OpenStax College Biology 22](#)

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4.1.10. Pseudopeptidoglycan is a characteristic of the walls of \_\_\_\_\_.

Author: OpenStax College

Pseudopeptidoglycan is a characteristic of the walls of \_\_\_\_\_.

Please choose only one answer:

- eukaryotic cells
- bacterial prokaryotic cells
- archaean prokaryotic cells
- bacterial and archaean prokaryotic cells

Check the answer of this question online at QuizOver.com:

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#### 4.1.11. The lipopolysaccharide layer (LPS) is a characteristic of the wall ...

Author: OpenStax College

The lipopolysaccharide layer (LPS) is a characteristic of the wall of \_\_\_\_\_.

Please choose only one answer:

- archaean cells
- Gram-negative bacteria
- bacterial prokaryotic cells
- eukaryotic cells

Check the answer of this question online at QuizOver.com:

Question: [The lipopolysaccharide layer LPS is a OpenStax College Biology 22](#)

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#### 4.1.12. Which of the following elements is not a micronutrient?

Author: OpenStax College

Which of the following elements is not a micronutrient?

Please choose only one answer:

- boron
- calcium
- chromium
- manganese

Check the answer of this question online at QuizOver.com:

Question: [Which of the following elements is not a OpenStax College Biology](#)

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#### 4.1.13. Prokaryotes that obtain their energy from chemical compounds are ca...

Author: OpenStax College

Prokaryotes that obtain their energy from chemical compounds are called \_\_\_\_\_.

Please choose only one answer:

- phototrophs
- auxotrophs
- chemotrophs
- lithotrophs

Check the answer of this question online at QuizOver.com:

Question: [Prokaryotes that obtain their energy from OpenStax College Biology](#)

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4.1.14. Ammonification is the process by which \_\_\_\_\_.

Author: OpenStax College

Ammonification is the process by which \_\_\_\_\_.

Please choose only one answer:

- ammonia is released during the decomposition of nitrogen-containing organic compounds
- ammonium is converted to nitrite and nitrate in soils
- nitrate from soil is transformed to gaseous nitrogen compounds such as NO, N<sub>2</sub>O, and N<sub>2</sub>
- gaseous nitrogen is fixed to yield ammonia

Check the answer of this question online at QuizOver.com:

Question: [Ammonification is the process by which . OpenStax College Biology](#)

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4.1.15. Plants use carbon dioxide from the air and are therefore called \_\_\_\_\_.

Author: OpenStax College

Plants use carbon dioxide from the air and are therefore called \_\_\_\_\_.

Please choose only one answer:

- consumers
- producers
- decomposer
- carbon fixers

Check the answer of this question online at QuizOver.com:

Question: [Plants use carbon dioxide from the air OpenStax College Biology 2](#)

Flashcards:

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4.1.16. A disease that is constantly present in a population is called \_\_\_\_\_.

Author: OpenStax College

A disease that is constantly present in a population is called \_\_\_\_\_.

Please choose only one answer:

- pandemic
- epidemic
- endemic
- re-emerging

Check the answer of this question online at QuizOver.com:

Question: [A disease that is constantly present in OpenStax College Biology](#)

Flashcards:

<http://www.quizover.com/flashcards/a-disease-that-is-constantly-present-in-openstax-college-biology?pdf=1505>

Interactive Question:

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#### 4.1.17. Which of the statements about biofilms is incorrect?

Author: OpenStax College

Which of the statements about biofilms is incorrect?

Please choose only one answer:

- Biofilms are considered responsible for diseases such as cystic fibrosis.
- Biofilms produce dental plaque, and colonize catheters and prostheses.
- Biofilms colonize open wounds and burned tissue.
- All statements are incorrect.

Check the answer of this question online at QuizOver.com:

Question: [Which of the statements about biofilms is OpenStax College Biology](#)

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#### 4.1.18. Which of these statements is true?

Author: OpenStax College

Which of these statements is true?

Please choose only one answer:

- An antibiotic is any substance produced by an organism that is antagonistic to the growth of prokaryotes.
- An antibiotic is any substance produced by a prokaryote that is antagonistic to the growth of other viruses.
- An antibiotic is any substance produced by a prokaryote that is antagonistic to the growth of eukaryotic cells.
- An antibiotic is any substance produced by a prokaryote that prevents growth of the same prokaryote.

Check the answer of this question online at QuizOver.com:

Question: [Which of these statements is true OpenStax College Biology 22 Quest](#)

Flashcards:

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#### 4.1.19. Which of these occurs through symbiotic nitrogen fixation?

Author: OpenStax College

Which of these occurs through symbiotic nitrogen fixation?

Please choose only one answer:

- The plant benefits from using an endless source of nitrogen.
- The soil benefits from being naturally fertilized.
- Bacteria benefit from using photosynthates from the plant.
- All of the above occur.

Check the answer of this question online at QuizOver.com:

Question: [Which of these occurs through symbiotic OpenStax College Biology](#)

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#### 4.1.20. Synthetic compounds found in an organism but not normally produced ...

Author: OpenStax College

Synthetic compounds found in an organism but not normally produced or expected to be present in that organism are called \_\_\_\_\_.

Please choose only one answer:

- pesticides
- bioremediators
- recalcitrant compounds
- xenobiotics

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Question: [Synthetic compounds found in an organism OpenStax College Biology](#)

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4.1.21. Bioremediation includes \_\_\_\_\_.

Author: OpenStax College

Bioremediation includes \_\_\_\_\_.

Please choose only one answer:

- the use of prokaryotes that can fix nitrogen
- the use of prokaryotes to clean up pollutants
- the use of prokaryotes as natural fertilizers
- All of the above

Check the answer of this question online at QuizOver.com:

Question: [Bioremediation includes . OpenStax College Biology 22 Prokaryotes](#)

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