

TEST BANK

Microbiology A Systems Approach

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5th Edition

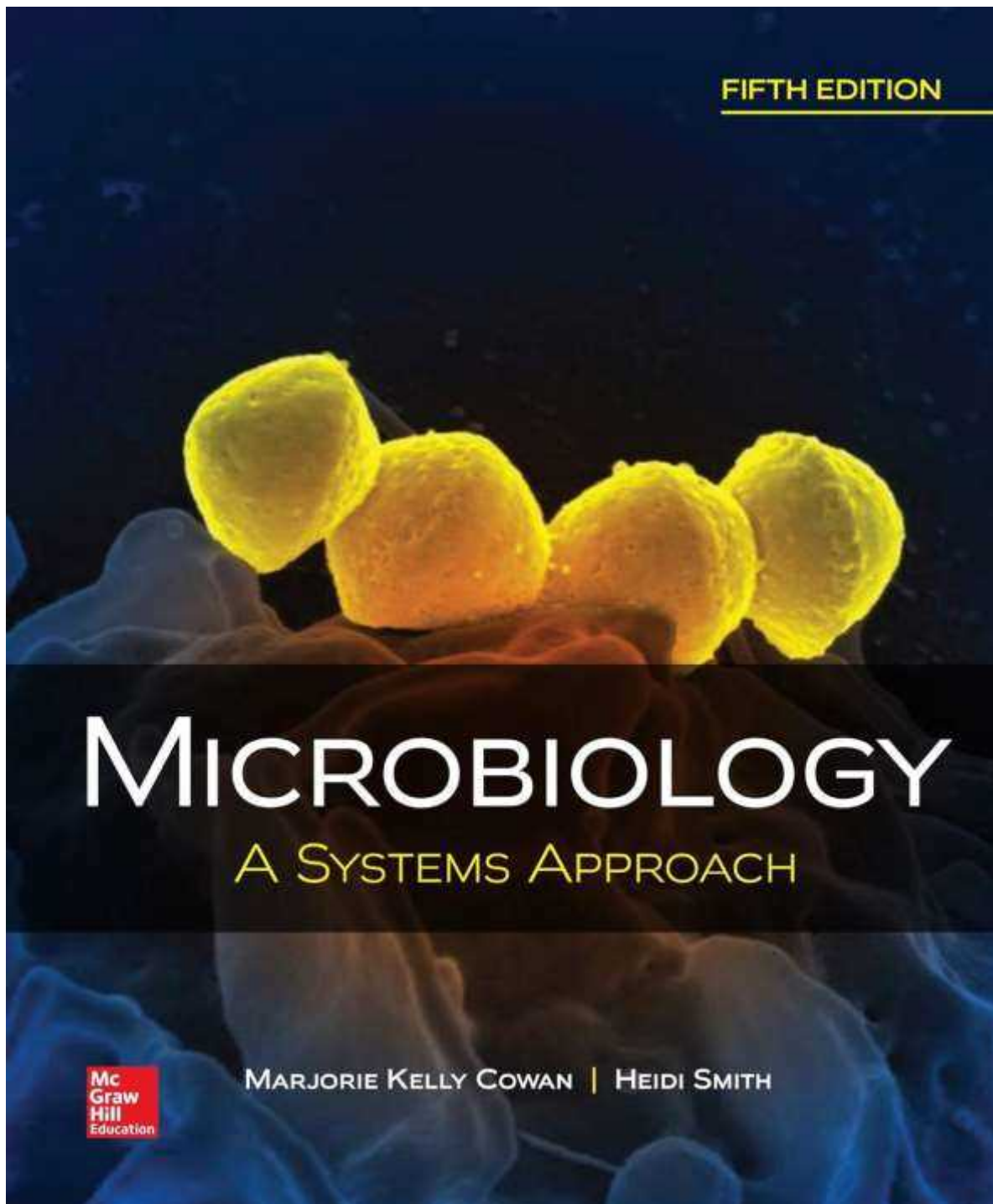


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Chapter 1 The Main Themes of Microbiology

- 1) Microorganisms are best defined as organisms that _____.
- A) cause human disease
 - B) lack a cell nucleus
 - C) are infectious particles
 - D) are too small to be seen with the unaided eye
 - E) can only be found growing in laboratories

Question Details

Learning Outcome : 01.01 List the six types of microorganisms we will be studying in this book.

ASM Topic : Module 02 Structure and Function

Bloom's : 1. Remember

Section : 01.01

Topic : Cellular Organization

ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m

Accessibility : Keyboard Navigation

- 2) Which of the following are not considered microorganisms?
- A) Mosquitoes
 - B) Protozoa
 - C) Bacteria
 - D) Viruses
 - E) Fungi

Question Details

Learning Outcome : 01.01 List the six types of microorganisms we will be studying in this book.

ASM Topic : Module 05 Systems

ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.

Bloom's : 2. Understand

Section : 01.01

Topic : Taxonomy of Microorganisms

Accessibility : Keyboard Navigation

3) Helminths are _____.

- A) bacteria
- B) protozoa
- C) molds
- D) parasitic worms
- E) infectious particles

Question Details

Learning Outcome : 01.01 List the six types of microorganisms we will be studying in this book.

ASM Topic : Module 02 Structure and Function

ASM Objective : 02.04 While microscopic eukaryotes (for example, fungi, protozoa, and algae) carry ou

Bloom's : 1. Remember

Section : 01.01

Topic : Taxonomy of Microorganisms

Accessibility : Keyboard Navigation

4) Among these types of microorganisms, the _____ are noncellular.

- A) viruses
- B) helminths
- C) protozoans
- D) bacteria

Question Details

Learning Outcome : 01.01 List the six types of microorganisms we will be studying in this book.

Learning Outcome : 01.08 Identify two types of acellular microorganisms.

ASM Topic : Module 02 Structure and Function

Bloom's : 1. Remember

Section : 01.01

Section : 01.05

Topic : Cellular Organization

ASM Objective : 02.05 The replication cycles of viruses (lytic and lysogenic) differ among viruses a

Accessibility : Keyboard Navigation

5) Studies of the immune response to an infection caused by microorganisms would be performed by a/an _____.

- A) hypersensitivity specialist
- B) epidemiologist
- C) immunologist
- D) geomicrobiologist

Question Details

Learning Outcome : 01.02 Identify multiple professions using microbiology.

ASM Topic : Module 05 Systems

ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h

Bloom's : 1. Remember

Section : 01.01

Topic : Microbial Roles

Accessibility : Keyboard Navigation

6) Which of the following pairs of career descriptions and work tasks is not correctly matched?

- A) Industrial microbiologist -- manipulate bacterial strains to be less pathogenic
- B) Agricultural microbiologist -- identify bacterial causes of crop disease
- C) Public health microbiologist -- track the incidence of AIDS in a population
- D) Medical microbiologist -- identify the cause of a bladder infection at a hospital lab

Question Details

Learning Outcome : 01.02 Identify multiple professions using microbiology.

ASM Topic : Module 06 Impact of Microorganisms

ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.

Bloom's : 1. Remember

Section : 01.01

Topic : Microbial Roles

Accessibility : Keyboard Navigation

7) A scientist who studies the influence of microbes in the formation of caves is called a/an _____.

- A) geomicrobiologist
- B) astrobiologist
- C) epidemiologist
- D) immunologist

Question Details

Learning Outcome : 01.02 Identify multiple professions using microbiology.

ASM Topic : Module 06 Impact of Microorganisms

ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li

Bloom's : 1. Remember

Section : 01.01

Topic : Microbial Roles

Accessibility : Keyboard Navigation

8) Astrobiology is considered a sub-discipline of microbiology because _____.

- A) life elsewhere in the universe is likely to be microbial
- B) microbes are known to exist on other planets
- C) all extraterrestrials known are microbial
- D) only microbes can reproduce under the extreme conditions in outer space

Question Details

Learning Outcome : 01.02 Identify multiple professions using microbiology.

ASM Topic : Module 01 Evolution

ASM Topic : Module 05 Systems

ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.

Bloom's : 3. Apply

Section : 01.01

Topic : Microbial Roles

Accessibility : Keyboard Navigation

9) Which of the following does not indicate microbe involvement in energy and nutrient flow?

- A) Thermal hot springs warmed by heat from earth's interior
- B) Formation of greenhouse gases, CO₂ and methane
- C) Digestion of complex carbohydrates in animal diets
- D) Decomposition of dead matter and wastes

Question Details

Learning Outcome : 01.03 Describe the role and impact of microbes on the earth.

ASM Topic : Module 05 Systems

ASM Topic : Module 06 Impact of Microorganisms

ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.

ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li

Bloom's : 2. Understand

Section : 01.02

Topic : Microbial Roles

Accessibility : Keyboard Navigation

10) The microorganisms that recycle nutrients by breaking down dead matter and wastes are called _____.

- A) decomposers
- B) prokaryotes
- C) pathogens
- D) eukaryotes
- E) fermenters

Question Details

Learning Outcome : 01.03 Describe the role and impact of microbes on the earth.

ASM Topic : Module 03 Metabolic Pathways

ASM Topic : Module 06 Impact of Microorganisms

ASM Objective : 03.01 Bacteria and Archaea exhibit extensive, and often unique, metabolic diversity (

ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li

Bloom's : 1. Remember

Section : 01.02

Topic : Microbial Roles

Accessibility : Keyboard Navigation

11) The majority of oxygen in earth's atmosphere is a product of photosynthesis by _____.

- A) microorganisms
- B) rain forests
- C) agricultural lands
- D) green plants

Question Details

Learning Outcome : 01.03 Describe the role and impact of microbes on the earth.

ASM Topic : Module 05 Systems

ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.

ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li

Bloom's : 1. Remember

Section : 01.02

Topic : Microbial Roles

Accessibility : Keyboard Navigation

12) The three cell types discussed, eukaryotes, archaea, and bacteria, all derived from _____.

- A) a common ancestral cell
- B) photosynthetic bacteria
- C) archaea
- D) cells with a true nucleus

Question Details

Learning Outcome : 01.04 Explain the theory of evolution and why it is called a theory.

ASM Topic : Module 01 Evolution

ASM Objective : 01.01 Cells, organelles (e.g., mitochondria and chloroplasts) and all major metabolic

Bloom's : 2. Understand

Section : 01.02

Topic : Cellular Organization

Accessibility : Keyboard Navigation

13) The first cells appeared about _____ billion years ago.

- A) 5
- B) 4
- C) 3.5
- D) 2
- E) 1

Question Details

Learning Outcome : 01.04 Explain the theory of evolution and why it is called a theory.

ASM Topic : Module 01 Evolution

ASM Objective : 01.01 Cells, organelles (e.g., mitochondria and chloroplasts) and all major metabolic

Bloom's : 1. Remember

Section : 01.02

Topic : Cellular Organization

Accessibility : Keyboard Navigation

14) Which area of biology states that living things undergo gradual structural and functional changes over long periods of time?

- A) Morphology
- B) Phylogeny
- C) Evolution
- D) Genetics
- E) Transformation

Question Details

Learning Outcome : 01.04 Explain the theory of evolution and why it is called a theory.

ASM Topic : Module 01 Evolution

ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tree

Bloom's : 1. Remember

Section : 01.02

Topic : History of Microbiology

Accessibility : Keyboard Navigation

15) When humans manipulate the genes of microorganisms, the process is called _____.

- A) bioremediation
- B) genetic engineering
- C) epidemiology
- D) immunology
- E) taxonomy

Question Details

Learning Outcome : 01.05 Explain one old way and one new way that humans manipulate organisms for the

ASM Topic : Module 04 Information Flow

ASM Topic : Module 05 Systems

ASM Objective : 04.05 Cell genomes can be manipulated to alter cell function.

ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.

Bloom's : 1. Remember

Section : 01.03

Topic : Microbial Roles

Accessibility : Keyboard Navigation

16) Which activity is an example of biotechnology?

- A) Bacteria in the soil secreting an antibiotic to kill competitors
- B) A microbiologist using the microscope to view bacteria
- C) Egyptians using moldy bread on wounds
- D) *Escherichia coli* producing human insulin
- E) Public health officials monitoring diseases in a community