TEST BANK

Microbiology A Systems Approach

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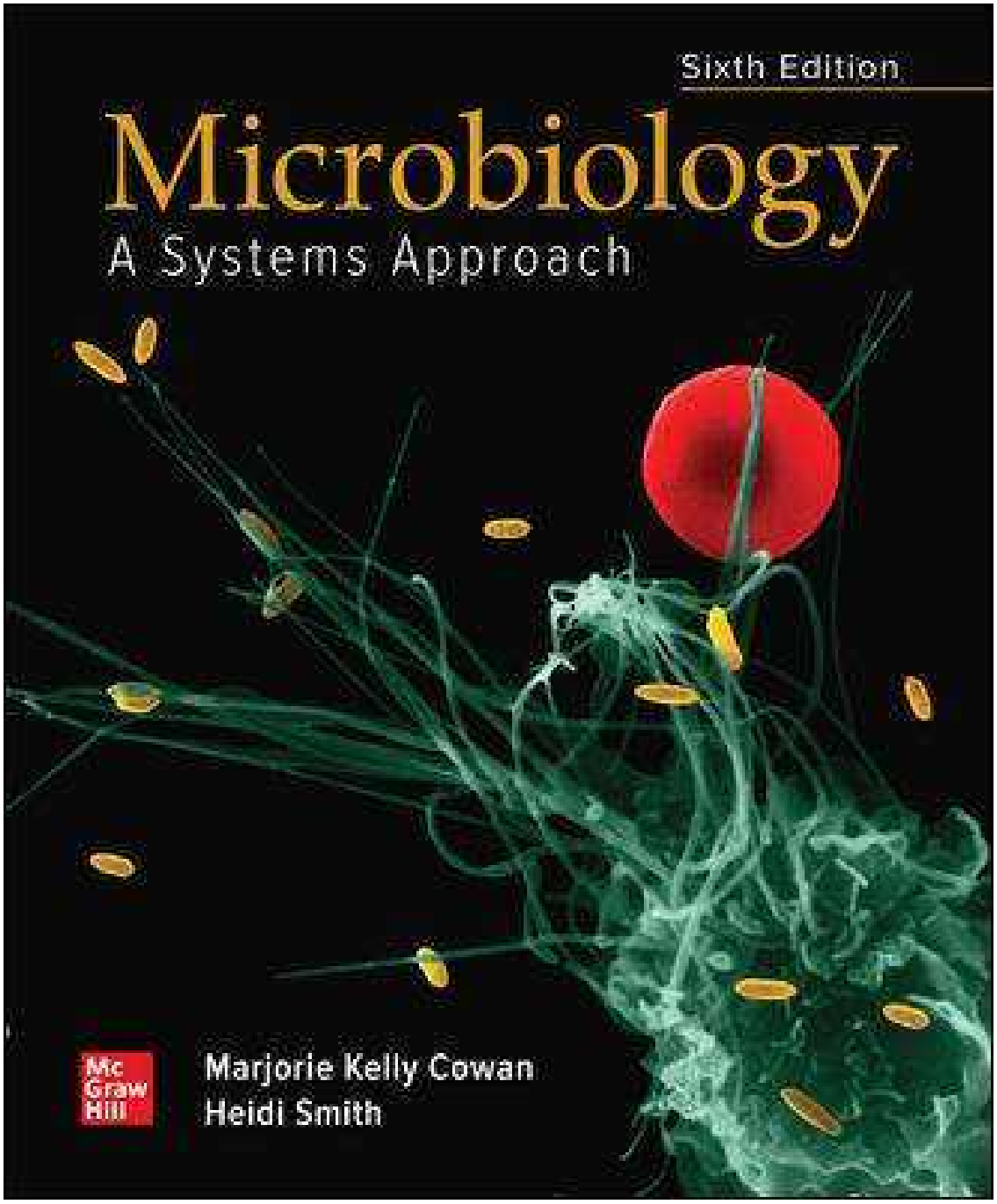
6th Edition



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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 _____ arenoncellular.

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, CO_2 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 tre
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

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 06 Impact of Microorganisms
ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.
Bloom's : 2. Understand
Section : 01.03
Topic : Microbial Roles
Accessibility : Keyboard Navigation

17) Which of the following is a traditional human use of microorganisms?

A) Baking bread
B) Treating water and sewage
C) Mass-producing antibiotics
D) Cleaning up oil spills

Question Details
Learning Outcome : 01.05 Explain one old way and one new way that humans manipulate organisms for the
ASM Topic : Module 06 Impact of Microorganisms
ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.
Bloom's : 2. Understand
Section : 01.03
Topic : Microbial Roles
Accessibility : Keyboard Navigation

18) Using microbes to detoxify a site contaminated with heavy metals is an example of _____.

A) biotechnology
B) bioremediation
C) decomposition
D) immunology
E) epidemiology

Question Details
Learning Outcome : 01.05 Explain one old way and one new way that humans manipulate organisms for the
ASM Topic : Module 06 Impact of Microorganisms
ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.
Bloom's : 1. Remember
Section : 01.03
Topic : Microbial Roles
Accessibility : Keyboard Navigation

19) Disease-causing microorganisms are called _____.

A) decomposers
B) bacteria
C) pathogens
D) eukaryotes
E) fermenters

Question Details
Learning Outcome : 01.06 Summarize the relative burden of human disease caused by microbes, emphasizi
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 : 01.04
Topic : Microbial Roles
Accessibility : Keyboard Navigation

20) The number one worldwide infectious diseases are _____.

A) AIDS-related diseases
B) diarrheal diseases
C) malaria and other protozoan diseases
D) measles and other rash diseases
E) respiratory diseases