Student name:\_\_\_\_\_\_\_\_\_\_

**1)** The scientific field called \_\_\_\_\_\_\_\_\_\_ is involved in the identification, classification, and naming of organisms.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.06  
Learning Outcome : Define taxonomy and its supporting terms classification, nomenclature, and identif  
Gradable : automatic

**2)** The area of biology that states that living things undergo gradual structural and functional changes over long periods of time is referred to as \_\_\_\_\_\_\_\_\_\_.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Discuss the fundamentals of evolution, evidence used to verify evolutionary trends  
Gradable : automatic

**3)** Living things ordinarily too small to be seen with the unaided eye are termed \_\_\_\_\_\_\_\_\_\_.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
Topic : History of Microbiology  
Gradable : automatic

**4)** Microorganisms composed only of hereditary material wrapped in a protein covering are referred to as \_\_\_\_\_\_\_\_\_\_.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.02  
ASM Topic : Module 04 Information Flow  
Learning Outcome : Describe the cellular makeup of microorganisms and their size range, and indicate  
Topic : General Viral Properties  
ASM Objective : 04.04 The synthesis of viral genetic material and proteins is dependent on host cells  
Gradable : automatic

**5)** Specialized internal structures, called \_\_\_\_\_\_\_\_\_\_, are found in eukaryotes but not in prokaryotes.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.02  
Learning Outcome : Describe the basic characteristics of prokaryotic cells and eukaryotic cells and t  
ASM Topic : Module 02 Structure and Function  
Topic : Cellular Organization  
ASM Objective : 02.04 While microscopic eukaryotes (for example, fungi, protozoa, and algae) carry ou  
Activity Type : New  
Gradable : automatic

**6)** Well-known diseases that are increasing in occurence are referred to as \_\_\_\_\_\_\_\_\_\_ diseases.

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Bloom's : 01. Remember  
Section : 01.04  
Accessibility : Keyboard Navigation  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Activity Type : New  
Gradable : automatic

**7)** Disease-causing microorganisms are called

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

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Bloom's : 01. Remember  
Section : 01.04  
Accessibility : Keyboard Navigation  
Gradable : automatic

**8)** 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**ASM Topic : Module 05 Systems  
Topic : Microbial Roles  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Learning Outcome : State several ways that microbes are involved in the earth's ecosystems.  
ASM Objective : 05.03 Microorganisms and their environment interact with and modify each other.  
Section : 01.02  
Gradable : automatic

**9)** The microorganisms that do *not* have a nucleus in their cells are called

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

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.02  
Learning Outcome : Describe the basic characteristics of prokaryotic cells and eukaryotic cells and t  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m  
Topic : Cellular Organization  
Gradable : automatic

**10)** When humans manipulate the genes of microorganisms, the process is called

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

**Question Details**Accessibility : Keyboard Navigation  
Learning Outcome : Name and define the primary areas included in microbiological studies.  
ASM Topic : Module 04 Information Flow  
ASM Objective : 04.05 Cell genomes can be manipulated to alter cell function.  
Topic : Basics of Genetic Engineering  
Bloom's : 02. Understand  
Section : 01.01  
Gradable : automatic

**11)** Which of the following are *not* considered microorganisms?

A) Mosquitoes   
 B) Protozoa  
 C) Bacteria  
 D) Viruses  
 E) Fungi

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Gradable : automatic

**12)** All 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**Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m  
Bloom's : 02. Understand  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
Topic : Taxonomy of Microorganisms  
Gradable : automatic

**13)** Which activity is an example of biotechnology?

A) Bacteria in the soil secrete an antibiotic to kill competitors.   
 B) A microbiologist uses a microscope to study bacteria.  
 C) Humans use yeast to make beer and wine.  
 D) *Mycobacterium tuberculosis* causes tuberculosis in the lungs.  
 E) Public health officials monitor diseases in a community.

**Question Details**Accessibility : Keyboard Navigation  
Learning Outcome : Discuss the ways microorganisms can be used to create solutions for environmental  
ASM Topic : Module 06 Impact of Microorganisms  
ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.  
Topic : Food Microbiology  
Bloom's : 03. Apply  
Section : 01.03  
Gradable : automatic

**14)** Which of the following is a unique characteristic of viruses that distinguishes them from the other major groups of microorganisms?

A) Viruses cause human disease.   
 B) Virusesare composed of cells that lack nuclei.  
 C) Viruses cannot be seen without an electron microscope.  
 D) Viruses contain genetic material.  
 E) Viruses lack ribosomes.

**Question Details**Accessibility : Keyboard Navigation  
Section : 01.02  
ASM Topic : Module 02 Structure and Function  
Bloom's : 02. Understand  
Learning Outcome : Describe the cellular makeup of microorganisms and their size range, and indicate  
ASM Objective : 02.05 The replication cycles of viruses (lytic and lysogenic) differ among viruses an  
Topic : General Viral Properties  
Topic : Viral structure  
Gradable : automatic

**15)** Who was the Dutch merchant that made and used quality magnifying lenses to see and record microorganisms?

A) Francesco Redi   
 B) Antonie van Leeuwenhoek  
 C) Louis Pasteur  
 D) Joseph Lister  
 E) Robert Koch

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
Gradable : automatic

**16)** Pasteur used swan-neck flasks in his experiments to prove that

A) air had "vital forces" capable of spontaneous generation.   
 B) microbial fermentation could be used to make wine.  
 C) dust in air was a source of living microorganisms.  
 D) microorganisms could cause disease.  
 E) microorganisms could be grown in laboratory infusions.

**Question Details**ASM Topic : Module 05 Systems  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.  
Gradable : automatic

**17)** Which of the following is *not* a process in the scientific method?

A) Belief in a preconceived idea   
 B) Formulation of a hypothesis  
 C) Systematic observation  
 D) Laboratory experimentation  
 E) Development of a theory

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Gradable : automatic

**18)** Spontaneous generation is the idea that

A) germs cause infectious diseases.   
 B) microbes are diverse and ubiquitous.  
 C) microbes placed in an infusion can grow in it.  
 D) aseptic techniques reduce microbes in medical settings.  
 E) living things arise from nonliving matter.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
ASM Topic : Module 03 Metabolic Pathways  
ASM Objective : 03.04 The growth of microorganisms can be controlled by physical, chemical, mechanica  
Gradable : automatic

**19)** Koch's postulates are criteria used to establish that

A) microbes are found on dust particles.   
 B) a specific microbe is the cause of a specific disease.  
 C) life-forms can only arise from preexisting life-forms.  
 D) a specific microbe should be classified in a specific kingdom.  
 E) microbes can be used to clean up toxic spills.

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
Gradable : automatic

**20)** Which of the following is a taxon that contains all the other taxa listed?

A) Species   
 B) Phylum  
 C) Kingdom  
 D) Genus  
 E) Family

**Question Details**Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Bloom's : 03. Apply  
Learning Outcome : Explain how the levels of a taxonomic scheme relate to each other. Give the names  
Section : 01.06  
Gradable : automatic

**21)** Which of the following is a scientific name?

A) Bacteria   
 B) Protista  
 C) Species  
 D) *Bacillus subtilis*  
 E) Bacilli

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.06  
Learning Outcome : Recall the order of taxa and the system of notation used in creating scientific na  
Learning Outcome : Describe the goals of nomenclature and how the binomial system is structured. Know  
Section : 01.07  
Gradable : automatic

**22)** Taxonomy does *not* involve

A) nomenclature.   
 B) classification.  
 C) taxa.  
 D) identification.  
 E) Koch's postulates.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.06  
Learning Outcome : Define taxonomy and its supporting terms classification, nomenclature, and identif  
Gradable : automatic

**23)** The smallest taxon is

A) genus.   
 B) species.  
 C) kingdom.  
 D) family.  
 E) phylum.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Learning Outcome : Explain how the levels of a taxonomic scheme relate to each other. Give the names  
Section : 01.06  
Learning Outcome : Recall the order of taxa and the system of notation used in creating scientific na  
Section : 01.07  
Gradable : automatic

**24)** The study of evolutionary relationships among organisms is called

A) biotechnology.   
 B) genetics.  
 C) recombinant DNA.  
 D) phylogeny.  
 E) taxonomy.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.06  
Learning Outcome : Define taxonomy and its supporting terms classification, nomenclature, and identif  
Gradable : automatic

**25)** A scientist studying similarities in the sequence of nucleotides in rRNA of two bacterial species is working on

A) determining evolutionary relatedness.   
 B) bioremediation.  
 C) recombinant DNA.  
 D) nomenclature.  
 E) determining if that species is the cause of a new disease.

**Question Details**Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Bloom's : 03. Apply  
Section : 01.07  
Learning Outcome : Explain the bases for classification, taxonomy, and nomenclature.  
Gradable : automatic

**26)** A scientist discovers a new microbial species. It is a single-celled eukaryote without cell walls. In which kingdom will it likely be classified?

A) Monera   
 B) Protista  
 C) Fungi   
  
 D) Animalia  
 E) Plantae

**Question Details**Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
Topic : Taxonomy of Microorganisms  
Bloom's : 03. Apply  
Section : 01.07  
Learning Outcome : Explain the bases for classification, taxonomy, and nomenclature.  
ASM Objective : 02.04 While microscopic eukaryotes (for example, fungi, protozoa, and algae) carry ou  
Gradable : automatic

**27)** A scientist collecting grass clippings to find the source of an outbreak of tularemia is an example of working in the field of

A) food microbiology.   
 B) epidemiology.  
 C) agricultural microbiology.  
 D) genetic engineering.  
 E) biotechnology.

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Accessibility : Keyboard Navigation  
Learning Outcome : Name and define the primary areas included in microbiological studies.  
Section : 01.01  
Bloom's : 03. Apply  
Topic : Epidemiology  
Gradable : automatic

**28)** Helminths are

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

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
Topic : Helminths  
Gradable : automatic

**29)** All of the following pertain to photosynthesis, *except*

A) it occurs only in members of the kingdom Plantae *.*   
 B) carbon dioxide is converted to organic material.  
 C) it contributes to the oxygen content in the atmosphere.  
 D) it is fueled by light.  
 E) it is important to each ecosystem's flow of energy and food.

**Question Details**Topic : Microbial Roles  
Accessibility : Keyboard Navigation  
Learning Outcome : State several ways that microbes are involved in the earth's ecosystems.  
Section : 01.02  
Bloom's : 02. Understand  
ASM Topic : Module 03 Metabolic Pathways  
ASM Objective : 03.02 The interactions of microorganisms among themselves and with their environment  
Gradable : automatic

**30)** Organisms called parasites are

A) always classified in the kingdom Monera.   
 B) always harmful to their host.  
 C) the decomposers in ecosystems.  
 D) always viruses.  
 E) free-living.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Gradable : automatic

**31)** Who was the surgeon that advocated using disinfectants on hands and in the air prior to surgery?

A) Joseph Lister   
 B) Ignaz Semmelweis  
 C) Robert Koch  
 D) Louis Pasteur  
 E) Antonie van Leeuwenhoek

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
ASM Topic : Module 03 Metabolic Pathways  
ASM Objective : 03.04 The growth of microorganisms can be controlled by physical, chemical, mechanica  
Gradable : automatic

**32)** Which scientist showed that anthrax was caused by the bacterium *Bacillus anthracis*?

A) Joseph Lister   
 B) Ignaz Semmelweis  
 C) Robert Koch  
 D) Louis Pasteur  
 E) Antonie van Leeuwenhoek

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
Gradable : automatic

**33)** Which of the following lists the correct descending taxonomic hierarchy (left to right)?

A) Family, Order, Class   
 B) Family, Genus, Species  
 C) Genus, Species, Family  
 D) Class, Phylum, Order  
 E) Kingdom, Domain, Phylum

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Learning Outcome : Explain how the levels of a taxonomic scheme relate to each other. Give the names  
Section : 01.06  
Gradable : automatic

**34)** When assigning a scientific name to an organism,

A) the species name is capitalized.   
 B) the species name is placed first.  
 C) the species name can be abbreviated.  
 D) both genus and species names are capitalized.  
 E) both genus and species names are italicized or underlined.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Topic : Taxonomy of Microorganisms  
ASM Topic : Module 07 Scientific Thinking  
Section : 01.06  
Learning Outcome : Describe the goals of nomenclature and how the binomial system is structured. Know  
ASM Objective : 07.03a Ability to communicate and collaborate with other disciplines: Effectively com  
Gradable : automatic

**35)** In Whittaker's system, the protozoa and algae are classified in the kingdom

A) Monera.   
 B) Protista.  
 C) Mycetae.  
 D) Plantae.  
 E) Animalia.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Gradable : automatic

**36)** The scientist(s) that proposed assigning organisms to one of three domains is/are

A) Robert Koch and Louis Pasteur.   
 B) Antonie van Leeuwenhoek.  
 C) Carl Woese and George Fox.  
 D) Robert Whittaker.  
 E) Francesco Redi.

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Gradable : automatic

**37)** Which kingdom does *not* contain any eukaryotes?

A) Monera   
 B) Protista   
  
 C) Mycetae  
 D) Plantae  
 E) Animalia

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Gradable : automatic

**38)** Which of the following are the main decomposers of the Earth?

A) Bacteria and fungi   
 B) Bacteria and viruses  
 C) Algae and viruses  
 D) Protists and fungi  
 E) All organisms are decomposers.

**Question Details**ASM Topic : Module 05 Systems  
Topic : Microbial Roles  
Accessibility : Keyboard Navigation  
Learning Outcome : State several ways that microbes are involved in the earth's ecosystems.  
ASM Objective : 05.03 Microorganisms and their environment interact with and modify each other.  
Section : 01.02  
Bloom's : 02. Understand  
Gradable : automatic

**39)** The most common infectious cause of death worldwide is

A) HIV/AIDS.   
 B) stroke.  
 C) heart disease.  
 D) cancer.  
 E) malaria.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Bloom's : 01. Remember  
Section : 01.04  
Accessibility : Keyboard Navigation  
Gradable : automatic

**40)** Which of the following diseases is transmitted by mosquitoes?

A) Diarrheal diseases   
 B) Tuberculosis  
 C) Malaria  
 D) Septicemia  
 E) Influenza

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Bloom's : 01. Remember  
Section : 01.04  
Accessibility : Keyboard Navigation  
Gradable : automatic

**41)** All of the following are correct about prokaryotes, *except*

A) they are smaller than eukaryotes.   
 B) they lack a nucleus.  
 C) they are less complex than eukaryotes.  
 D) they have organelles.  
 E) they are found nearly everywhere.

**Question Details**Accessibility : Keyboard Navigation  
Section : 01.02  
Learning Outcome : Describe the basic characteristics of prokaryotic cells and eukaryotic cells and t  
ASM Topic : Module 02 Structure and Function  
Topic : Cellular Organization  
Bloom's : 02. Understand  
ASM Objective : 02.02 Bacteria have unique cell structures that can be targets for antibiotics, immun  
Gradable : automatic

**42)** All of the following contribute to the rise of emerging diseases, *except*

A) the decrease in drug-resistant bacteria.   
 B) human encroachment on wild habitats.  
 C) changes in agricultural practices.  
 D) human populations are more mobile.

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Gradable : automatic

**43)** Which scientist discovered heat-resistant bacterial spores?

A) Joseph Lister   
 B) Ignaz Semmelweis  
 C) Robert Koch  
 D) Ferdinand Cohn  
 E) Antonie van Leeuwenhoek

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.01 The structure and function of microorganisms have been revealed by the use of m  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
Gradable : automatic

**44)** Which of the following is the correct way to write the scientific name of this bacterium?

A) Staph Aureus   
 B) Staphylococcus Aureus  
 C) *Staphylococcus aureus*   
  
 D) Staphylococcus Aureus  
 E) S. Aureus

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Topic : Taxonomy of Microorganisms  
ASM Topic : Module 07 Scientific Thinking  
Section : 01.06  
Learning Outcome : Describe the goals of nomenclature and how the binomial system is structured. Know  
ASM Objective : 07.03a Ability to communicate and collaborate with other disciplines: Effectively com  
Gradable : automatic

**45)** Where are you most likely to find prokaryotes belonging to the domain Archaea?

A) A human's large intestine   
 B) A hot spring  
 C) A pond  
 D) A sewage treatment plant  
 E) A beer production facility

**Question Details**ASM Topic : Module 05 Systems  
Topic : Microbial Roles  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : Taxonomy of Microorganisms  
ASM Objective : 05.01 Microorganisms are ubiquitous and live in diverse and dynamic ecosystems.  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Gradable : automatic

**46)** When microbes are introduced into the environment to restore stability, the process is called

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

**Question Details**Topic : Microbial Roles  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Learning Outcome : Discuss the ways microorganisms can be used to create solutions for environmental  
ASM Topic : Module 06 Impact of Microorganisms  
Section : 01.03  
ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li  
Gradable : automatic

**47)** In which of the following conditions is/are microbial infection often implicated as a cause?

A) Gastric ulcers   
 B) Female infertility  
 C) Coronary artery disease  
 D) Cervical cancer  
 E) All of the choices are correct.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Gradable : automatic

**48)** Cyanide is a chemical used to dissolve gold and is harmful to the environment and organisms living there. A couple of biochemists came up with the idea of using the bacteria in the genus *Pseudomonas* to break down the cyanide used by a gold mining company. Which term refers to this use of bacteria?

A) Bioremediation   
 B) Immunoextraction  
 C) Decomposition  
 D) Bioextraction  
 E) Biosynthesis

**Question Details**Topic : Microbial Roles  
Accessibility : Keyboard Navigation  
Learning Outcome : Discuss the ways microorganisms can be used to create solutions for environmental  
ASM Topic : Module 06 Impact of Microorganisms  
ASM Objective : 06.03 Humans utilize and harness microorganisms and their products.  
Bloom's : 03. Apply  
Section : 01.03  
Gradable : automatic

**49)** Which of the following branches of Microbiology is utilized in diagnosing or treating someone who has broken out in hives and is experiencing respiratory distress due to an exposure to a microbial toxin?

A) Agricultural Microbiology   
 B) Epidemiology  
 C) Biotechnology  
 D) Immunology  
 E) Industrial Microbiology

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Accessibility : Keyboard Navigation  
Learning Outcome : Name and define the primary areas included in microbiological studies.  
Bloom's : 02. Understand  
Section : 01.01  
Topic : Hypersensitivities  
Gradable : automatic

**50)** The nurse in an emergency department is reviewing discharge instructions with a client. The client asks for clarification of a zoonosis, in regards to the type of illness. What is the *best* response by the nurse?

A) A zoonosis refers to any viral disease.   
 B) A zoonosis is any disease which can be successfully treated with antibiotics.  
 C) A zoonosis is a disease typically found in animals, but which infects humans.  
 D) A zoonosis is a disease caused by a eukaryotic parasite.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Activity Type : New  
Gradable : automatic

**51)** A scientist that constructs a hypothesis and then tests its validity by outlining predicted events of the hypothesis followed by experimenting to test for those events is using the \_\_\_\_\_\_\_\_\_\_ approach.

A) inductive   
 B) deductive  
 C) instructive  
 D) trial-and-error

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Gradable : automatic

**52)** Recently Zika virus has been in the news, with many cases in Central and South America and increasing numbers of cases in the southern United States. Five years ago this virus was essentially unheard of in these areas. This is an example of

A) an endemic virus.   
 B) an emerging infectious disease.  
 C) genetic recombination.  
 D) a pandemic.

**Question Details**ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 03. Apply  
Topic : Epidemiology  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Gradable : automatic

**53)** Numerous cases of microcephaly have been observed in the newborn babies of women who were infected with Zika virus during pregnancy. This led to the proposed hypothesis that Zika virus was causing the birth defects. This is an example of

A) hypothesis testing.   
 B) deductive reasoning.  
 C) inductive reasoning.  
 D) theory development.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 03. Apply  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01b Ability to apply the process of science: Analyze and interpret results from a  
Gradable : automatic

**54)** You identify a new species of microorganism in an undersea thermal vent. The microbe is a single cell organism that lacks a nucleus. Which Domain would you classify your new species as belonging to?

A) Domain Archaea   
 B) Domain Bacteria  
 C) Domain Eukarya  
 D) None of the answers are correct.

**Question Details**Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Bloom's : 03. Apply  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Activity Type : New  
Gradable : automatic

**55)** A scientist makes a hypothesis that increased susceptibility to mosquito bites has a genetic basis. What is *not* an appropriate next step for her?

A) She should present the data that promotes this hypothesis to get feedback from other scientists.   
 B) She should repeat the experiments that led her to this hypothesis.  
 C) She should propose a theory based on the results from her preliminary experiment.  
 D) She should design a set of experiments that will test her hypothesis in a different way.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Activity Type : New  
Gradable : automatic

**56)** Which of the following is the *least* useful information to determine the evolutionary relatedness of two species?

A) The environments they live in.   
 B) Their DNA sequences.  
 C) The morphological features that they have in common.  
 D) All of the answers are important for determining evolutionary relatedness.

**Question Details**Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Bloom's : 03. Apply  
Section : 01.07  
Activity Type : New  
Learning Outcome : Discuss the fundamentals of evolution, evidence used to verify evolutionary trends  
Gradable : automatic

**57)** Discuss three different beneficial consequences and three different detrimental consequences of killing all microorganisms on the Earth.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
ASM Objective : 05.03 Microorganisms and their environment interact with and modify each other.  
Learning Outcome : Discuss the ways microorganisms can be used to create solutions for environmental  
ASM Topic : Module 06 Impact of Microorganisms  
Section : 01.03  
ASM Objective : 06.01 Microbes are essential for life as we know it and the processes that support li  
Bloom's : 04. Analyze  
Gradable : manual

**58)** Discuss five reasons why infectious diseases are increasing in number around the world.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Bloom's : 04. Analyze  
Gradable : manual

**59)** Outline the experiment that Louis Pasteur did with swan-necked-shaped tubes to disprove spontaneous generation.

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01b Ability to apply the process of science: Analyze and interpret results from a  
Gradable : manual

**60)** Predict one reason why water contaminated by the algae *Microcystis*cannot be made safe by boiling.

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 03. Apply  
Topic : Epidemiology  
Activity Type : New  
Gradable : manual

**61)** Cases of chikungunya virus in the United States are primarily restricted to Florida and the Southeastern coast. Briefly explain a reason for this distribution.

**Question Details**ASM Topic : Module 05 Systems  
Section : 01.04  
Accessibility : Keyboard Navigation  
ASM Objective : 05.03 Microorganisms and their environment interact with and modify each other.  
Bloom's : 03. Apply  
Topic : Epidemiology  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Activity Type : New  
Gradable : manual

**62)** Briefly explain (1) why hospitals are such a common source of infectious disease and (2) why aseptic technique limits infection.

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Accessibility : Keyboard Navigation  
Learning Outcome : Outline the major events in the history of mirobiology, including the major contri  
Topic : History of Microbiology  
Section : 01.05  
Activity Type : New  
Bloom's : 04. Analyze  
Gradable : manual

**63)** Members of the same species share many more characteristics compared to those shared by members of the same kingdom.

⊚ true  
 ⊚ false

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Learning Outcome : Explain how the levels of a taxonomic scheme relate to each other. Give the names  
Section : 01.06  
Gradable : automatic

**64)** Viruses are *not* classified in any of Whittaker's five kingdoms.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.02  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Learning Outcome : Describe the cellular makeup of microorganisms and their size range, and indicate  
Gradable : automatic

**65)** Members of the kingdom Fungi are photosynthetic.

⊚ true  
 ⊚ false

**Question Details**Topic : Microbial Roles  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.02  
Learning Outcome : Describe the basic characteristics of prokaryotic cells and eukaryotic cells and t  
ASM Topic : Module 02 Structure and Function  
ASM Objective : 02.04 While microscopic eukaryotes (for example, fungi, protozoa, and algae) carry ou  
Gradable : automatic

**66)** A scientist studying helminths is working with bacteria.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 02 Structure and Function  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
ASM Objective : 02.04 While microscopic eukaryotes (for example, fungi, protozoa, and algae) carry ou  
Topic : Helminths  
Gradable : automatic

**67)** The fossil record has established that prokaryotes existed on Earth for approximately two billion years before eukaryotes evolved.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Discuss the fundamentals of evolution, evidence used to verify evolutionary trends  
Gradable : automatic

**68)** It has been over 25 years since a new infectious disease has emerged in the world.

⊚ true  
 ⊚ false

**Question Details**ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Bloom's : 01. Remember  
Section : 01.04  
Accessibility : Keyboard Navigation  
Topic : Epidemiology  
Learning Outcome : Define what is meant by emerging and reemerging diseases.  
Gradable : automatic

**69)** *The term sterile means free of all life-forms.*

⊚ true  
 ⊚ false

**Question Details**Topic : Microbial Roles  
Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Section : 01.01  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
ASM Topic : Module 03 Metabolic Pathways  
ASM Objective : 03.04 The growth of microorganisms can be controlled by physical, chemical, mechanica  
Gradable : automatic

**70)** All microorganisms are parasites.

⊚ true  
 ⊚ false

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Gradable : automatic

**71)** During a scientific experiment, the control group is used to directly test or measure the consequences of a variable in the study.

⊚ true  
 ⊚ false

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 03. Apply  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Gradable : automatic

**72)** The scientific method involves formulating a tentative explanation, called the hypothesis, to account for what has been observed or measured.

⊚ true  
 ⊚ false

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Gradable : automatic

**73)** Once an organism is assigned to a particular taxonomic hierarchy, it is permanent and cannot be revised.

⊚ true  
 ⊚ false

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Explain the bases for classification, taxonomy, and nomenclature.  
Learning Outcome : Discuss the fundamentals of evolution, evidence used to verify evolutionary trends  
Gradable : automatic

**74)** When the results of an experiment support a hypothesis, the hypothesis can now be considered a theory.

⊚ true  
 ⊚ false

**Question Details**Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Gradable : automatic

**75)** The names of the three proposed domains are: Bacteria, Protista, Eukarya.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
ASM Topic : Module 01 Evolution  
ASM Objective : 01.05 The evolutionary relatedness of organisms is best reflected in phylogenetic tre  
Topic : Taxonomy of Microorganisms  
Section : 01.07  
Learning Outcome : Explain the concepts behind the organization of the two main trees of life, and in  
Gradable : automatic

**76)** One distinguishing characteristic of archaeais that they live in extreme environments.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Learning Outcome : Define microbiology and microorganisms, and identify the major organisms included  
Topic : Taxonomy of Microorganisms  
ASM Topic : Module 03 Metabolic Pathways  
Learning Outcome : Recall the order of taxa and the system of notation used in creating scientific na  
Section : 01.07  
ASM Objective : 03.01 Bacteria and Archaea exhibit extensive, and often unique, metabolic diversity (  
Gradable : automatic

**77)** Some microorganisms can photosynthesize, but their overall contribution to Earth's atmospheric oxygen is very small in comparison to plant photosynthesis.

⊚ true  
 ⊚ false

**Question Details**Topic : Microbial Roles  
Accessibility : Keyboard Navigation  
Learning Outcome : State several ways that microbes are involved in the earth's ecosystems.  
Section : 01.02  
Bloom's : 02. Understand  
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  
Activity Type : New  
Gradable : automatic

**78)** Any microorganism on or in the human body is considered a pathogen.

⊚ true  
 ⊚ false

**Question Details**Learning Outcome : Review the roles of microorganisms as parasites and pathogens that cause infection  
ASM Topic : Module 05 Systems  
ASM Objective : 05.04 Microorganisms, cellular and viral, can interact with both human and nonhuman h  
Topic : Microbial Roles  
Section : 01.04  
Accessibility : Keyboard Navigation  
Bloom's : 02. Understand  
Activity Type : New  
Gradable : automatic

**79)** Theories are supported by more evidence than hypotheses.

⊚ true  
 ⊚ false

**Question Details**Bloom's : 01. Remember  
Accessibility : Keyboard Navigation  
Topic : History of Microbiology  
Section : 01.05  
Learning Outcome : Explain the main features of the scientific method, and differentiate between indu  
ASM Topic : Module 07 Scientific Thinking  
ASM Objective : 07.01a Ability to apply the process of science: Demonstrate an ability to formulate h  
Activity Type : New  
Gradable : automatic

**Answer Key**Test name: Chapter 01

1) taxonomy

2) Evolution

3) microorganisms

4) viruses

5) organelles

6) reemerging

7) C

8) A

9) B

10) B

11) A

12) D

13) C

14) E

15) B

16) C

17) A

18) E

19) B

20) C

21) D

22) E

23) B

24) D

25) A

26) B

27) B

28) D

29) A

30) B

31) A

32) C

33) B

34) E

35) B

36) C

37) A

38) A

39) A

40) C

41) D

42) A

43) D

44) C

45) B

46) A

47) E

48) A

49) D

50) C

51) B

52) B

53) C

54) A

55) C

56) A

57) Answer may vary

58) Answer may vary

59) Answer may vary

60) Answer may vary

61) Answer may vary

62) Answer may vary

63) TRUE

64) TRUE

65) FALSE

66) FALSE

67) TRUE

68) FALSE

69) TRUE

70) FALSE

71) FALSE

72) TRUE

73) FALSE

74) FALSE

75) FALSE

76) TRUE

77) FALSE

78) FALSE

79) TRUE