

Link câu hỏi trắc nghiệm tham khảo:

<https://www.austincc.edu/lesalbin/BIOL%202420%20Chapter%207-12%20Multiple%20Choice%20Questions.htm>

Câu hỏi 1: Who was the first to observe bacteria with a microscope? \*

**A. Antoni van Leeuwenhoek**

Robert Hooke mô tả cái móc

Robert Koch bệnh than bệnh ngủ châu phi

Louis Pasteur tạo ra nước thịt

Câu hỏi 2: Which statement BEST describes where bacteria can be found? \*

In our bodies

**Almost everywhere**

In super cold environments

In meat

Câu hỏi 3: A chemical that can kill bacteria without harming the human body is a(n) \*

Water

Vaccine

Virus

**Antibiotic**

Câu hỏi 4: List 5 Characteristics of Living Systems \*

**Open system, motility, growth, differentiation, communication, evolution**

Question 1: Which of the following describes cocci in chains? \*

**A. streptococci**

B. tetrads

C. diplococci

D. staphylococci

Question 2: Which three structures are possessed by ALL bacteria? \*

**A. cell membrane**

B. cell wall

**C. chromosome**

**D. ribosomes**

Question 3: Which of the following describes Proteobacteria in domain Bacteria?

**A. phylum**

B. class

C. species

D. genus

Question 4: What makes bacteria and archaea different from eukaryotes? \*

A. They have cell wall

**B. They lack a nucleus**

C. They have unicellular structure

D. All above are correct

Question 5: A cellular arrangement in which cells form a cubical package of 8 cells is termed \_\_\_\_ \*

A. diplococci

B. tetrads

C. **sarcina**

D. staphylococci

Question 6: Bacilli are the term used for \_\_\_\_ \*

A. round bacteria

B. spiral bacteria

C. **rod shaped bacteria**

D. cluster shaped bacteria

Question 7: A polysaccharide that helps the bacteria in adherence to the surface is named as \_\_\_\_ \*

A. nucleoid

B. cytoplasm

C. cytoskeleton

D. **glycocalyx**

Question 8: The flagellum is made of \_\_\_\_ \*

A. **proteins**

B. sugars (glycocalyx)

C. lipids

D. polysaccharides

Question 9: The space between the outer membrane and plasma membrane is called \_\_\_\_

A. cytoplasm

B. **periplasm**

C. peptidoglycan

D. pseudomurein

Question 10: The compound microscope consists of two lenses known as \_\_\_\_ \*

A. **objective and eyepiece lens**

B. objective and condenser lens

C. eyepiece and ocular lens

D. none of above is correct

Question 11: In \_\_\_\_\_ microscopy, the specimen appears dark and the microscopic background is brightly illuminated \*

A. dark field

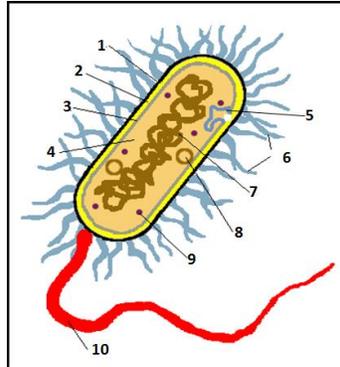
B. **bright field**

C. both A and B are correct

D. both A and B are incorrect

Question 12: Lipopolysaccharide is found in cell wall of \_\_\_\_ \*

- A. Gram positive bacteria
- B. Gram negative bacteria**
- C. Both A and B are correct
- D. Both A and B are incorrect



Question 13: The structure labelled "6" which helps transfer DNA from cell to cell during bacterial conjugation is called \_\_\_\_ \*

- A. flagella
- B. fimbriae
- C. pili**
- D. cilia

Question 14: In bacteria, DNA is not surrounded by a membrane. The region where DNA is located is labelled "7" and is called as \_\_\_\_

- A. nucleus
- B. plasmid
- C. nucleoid**
- D. all above are correct

Question 15: It is a selectively permeable layer made up of phospholipids and proteins which is labelled "3" is \_\_\_\_ \*

- A. cell wall
- B. cell membrane**
- C. capsule
- D. slime layer

Question 16: The bacterium that cause anthrax disease is \_\_\_\_ \*

- A. Bacillus anthracis**
- B. Bacillus anthrax
- C. Mycobacterium anthracis
- D. Mycobacterium anthrax

Question 17: All bacteria are photosynthetic \*

- A. True
- B. False**

Question 18: Koch's experiments established a relationship between microorganisms and disease \*

- A. True
- B. False

Question 19: The overall shape of a bacterial cell is determined by which of the following? \*

- A. Cell membrane
- B. Cytoskeleton
- C. Nucleoid
- D. All above are correct

Question 20: The association of endotoxin in Gram-negative bacteria is a result of the presence of \_\_\_\_ \*

- A. peptidoglycan
- B. teichoic acid
- C. Lipoprotein
- D. Lipid A

Question 1: Viruses are \_\_\_\_ \*

- A. obligate parasites
- B. Free living
- C. Both free living and parasitic
- D. None of these

Question 2: The genetic material of viruses consists of either \_\_\_\_ \*

- A. DNA
- B. RNA
- C. DNA or RNA
- D. ssDNA or ssRNA

Question 3: The protein coat of virus is called as \_\_\_\_ \*

- A. Nucleoid
- B. Capsid
- C. Capsomere
- D. Outer envelope

Question 4: Viruses that attacks bacteria are called \_\_\_\_ \*

- A. Lysophage
- B. Bacteriophage
- C. Virophage
- D. None of these

Question 5: Viral genome attached to the bacterial genome is termed as \_\_\_\_ \*

- A. Prophage
- B. Retrovirus
- C. Lysogeny

D. Lytic cycle

Question 1: A virus obtains its envelope during which of the following phases? \*

A. attachment

B. penetration

C. assembly

D. release

Question 2: A positive-strand RNA virus: \*

A. must first be converted to a mRNA before it can be translated.

B. can be used directly to translate viral proteins.

C. will be degraded by host enzymes.

D. is not recognized by host ribosomes.

Question 4: Which of the following leads to the destruction of the host cells? \*

A. lysogenic cycle

B. lytic cycle

C. prophage

D. temperate phage

Question 5: What is another name for a non-enveloped virus? \*

A. enveloped virus

B. provirus

C. naked virus

D. latent virus

Question 3: An obligate halophile requires high: \*

A. pH

B. temperature

C. salt

D. pressure

Question 1: Archaea belongs to ... \*

Eukaryotes

Prokaryotes

Non-cellular organisms

All above are correct

Question 2: Which is (are) the distinctive point(s) between Eubacteria and Archaea" \*

Cell membrane composition

Cell wall composition

RNA polymerase structure

All above are correct

Question 5: Which is the cell arrangement type of Staphylococcus aureus? \*

Cocci in pairs

Cocci in chains

Cocci in clusters

Cocci in tetrad

Question 1: The flow of genetic material in microbial cells usually takes place from \*

- A. RNA through DNA to proteins
- B. proteins through RNA to DNA
- C. DNA through RNA to proteins
- D. none of these

Question 2: Proteomics is \*

- A. the study of algal genomes
- B. a branch of quantum physics dealing with proteins
- C. the study of formation of lipo-protein in animals
- D. the study of the entire collection of proteins expressed by an organism

Question 3: Which of the following is the study of the molecular organization of genomes, their information content and the gene products they encode? \*

- A. Genetics
- B. Ergonomics
- C. Genomics
- D. Bioinformatics

Question 4: In the word "chromosome", the terms "chromo" means: \*

- A. thread
- B. spindle
- C. colored
- D. visible

Question 5: The agents that can cause mutation are named as \*

- A. mutagen
- B. carcinogen
- C. oncogene
- D. oncovirus

Question 1: The term prokaryotes refers to which of the following? \*

- A. very small organisms
- B. unicellular organisms that have no nucleus
- C. multicellular organisms
- D. cells that similar to animal cells more than plant cells

Question 2: Which of the following is the organelle that spirochetes use to propel themselves? \*

- A. plasma membrane
- B. pili
- C. fimbriae
- D. axial filament

Question 3: Archaea and Bacteria are most similar in terms of their .... \*

- A. unicellular structure

- B. cell wall structure
- C. cell membrane composition
- D. All above are correct**

Question 4: Which of the following is found in all prokaryotic cells? \*

- A. Ribosome**
- B. Cell wall
- C. Flagella
- D. Nucleus

Question 5: The extracellular appendage which helps in movement in bacteria \*

- A. Capsule
- B. Flagella**
- C. Pili
- D. Slime layer

Question 1: Which genus causes malaria? \*

- A. Euglena
- B. Paramecium
- C. Plasmodium**
- D. Trypanosoma

Question 2: Which polysaccharide found in red algal cell walls is a useful solidifying agent? \*

- A. chitin
- B. cellulose
- C. phycoerythrin
- D. agar**

Question 3: Which of the following is a eukaryote? \*

- A. Bacteria
- B. Virus
- C. Archaea
- D. Mold**

Question 4: Differences between eukaryotic and prokaryotic cells include all of the following except \_\_\_\_ \*

- A. eukaryotic cells have mitochondria
- B. eukaryotic cells have cilia and flagella with complex structure
- C. prokaryotic cells have cell wall
- D. prokaryotic cells have no genetic material**

Question 5: The presence of membrane-enclosed organelles is a characteristic of \_\_\_\_ \*

- A. prokaryotic cells
- B. eukaryotic cells**
- C. all cells
- D. viruses

Question 1: The time required for a cell to undergo binary fission is called the: \*

- A. exponential growth phase
- B. growth curve
- C. generation time
- D. lag phase

Question 2: An organism that can synthesize all its required organic components from CO<sub>2</sub> using energy from the sun is a: \*

- A. photoautotroph
- B. photoheterotroph
- C. chemoautotroph
- D. chemoheterotroph

Question 3: Which of these infectious agents do not have nucleic acid? \*

- A. viroids
- B. viruses
- C. bacteria
- D. prions

Question 4: Which of the following is true of passive transport? \*

- A. it requires a gradient
- B. it uses the cell wall
- C. it includes endocytosis
- D. it only moves water

Question 5: Active transport of a substance across a membrane requires: \*

- A. a gradient
- B. the consume of ATP
- C. water
- D. diffusion

Question 1: An apoenzyme is where the \_\_\_\_\_ is located. \*

- A. cofactor
- B. coenzyme
- C. redox reaction
- D. active site

Question 2: A cell exposed to a hypertonic environment will \_\_\_\_\_ by osmosis: \*

- A. gain water
- B. lose water
- C. neither gain nor lose water
- D. burst

Question 3: Superoxide ion is toxic to strict anaerobes because they lack: \*

- A. catalase
- B. peroxidase
- C. dismutase

D. oxidase

Option 5

Question 4: In a viable plate count, each \_\_\_ represents a \_\_\_ from the sample population

A. cell, colony

**B. colony, cell**

C. hour, generation

D. cell, generation

Question 5: \_\_\_\_\_ is another term for biosynthesis \*

A. catabolism

**B. anabolism**

C. metabolism

D. catalyst