

7TH GRADE LIFE SCIENCE

BACTERIA AND VIRUSES UNIT EXAM

/35

NAME: _____

DATE: _____

MATCHING: Please match the term with the definition. Use all letters once. (1 pt. each)

- | | |
|--|----------------------|
| ___ 1. A virus that does not become active immediately after entering the host cell | a. Host Cell |
| ___ 2. A protein that acts against a specific antigen | b. Antibody |
| ___ 3. Resistance to disease | c. Virus |
| ___ 4. Drug that block the growth and reproduction of bacteria | d. Innate Immunity |
| ___ 5. A virus that becomes active immediately after entering the host cell | e. Latent virus |
| ___ 6. Immunity that is present before exposure and effective from birth. | f. Active virus |
| ___ 7. Immunity that is present only after exposure and is highly specific. | g. Immunity |
| ___ 8. Living cell in which a virus replicates | h. Antibiotic |
| ___ 9. Tiny non-living particle, smaller than bacteria and other pathogens, which must invade living cells in order to reproduce | i. Acquired Immunity |

TRUE/FALSE: (1 pt. each)

- ___ 1. Bacteria are Eukaryotes.

- ___ 2. A sticky layer that surrounds the cell walls of some bacteria, protecting the cell surface, and sometimes helping to glue the cell to surfaces is the plasmid.

- ___ 3. Bacteria are always harmful to humans.

- ___ 4. The Capsule, Cell wall, and Cell membrane are all the SAME thing.

- ___ 5. The Black Plague was a bacterial disease that originated in the fleas that were found of rats.

- ___ 6. A reservoir is the place where bacteria are found naturally.

SHORT ANSWER: Answer each question complete. You do not have to use complete sentences. Please write legibly.

- 1. List 2 differences between Prokaryotic and Eukaryotic cells. (2 pts.)
 - a.

 - b.

- 2. What are the three possible shapes of a bacterium? (3 pts.)
 - a.

 - b.

 - c.

- 3. What is the difference between disinfection and antisepsis? (2 pts.)

MULTIPLE CHOICE: pick one answer (1 pt. each)

1. This structure forms when the bacteria is exposed to unfavorable conditions like drought or freezing temperatures:
 - a. Endospore
 - b. Pili
 - c. Flagella
 - d. DNA
2. A harmless variant or derivative of a pathogen that stimulates a host's immune system to mount defenses against the pathogen is a:
 - a. Mutant gene
 - b. Immunity
 - c. Antibody
 - d. Vaccine
3. Bacteria that live normally in and on the body
 - a. Natural flora
 - b. Contagious
 - c. Found in the mouth, intestine, and on the skin
 - d. Both A and C
4. Conjugation occurs when two bacteria connect through a
 - a. Flagella
 - b. Spirillum
 - c. Pili
 - d. Plasmid
5. Which of the following is a unicellular organism?
 - a. Human
 - b. Bacteria
 - c. Mushroom
 - d. Seed

ESSAY: What is the difference between a virus and a bacterium? Please include an Introduction paragraph, a Body portion (2 or 3 paragraphs will well supported points), and a conclusion paragraph. Remember to use proper spelling and grammar! Write legibly. Don't forget the extra credit on the next page! (8 pts.)

EXTRA CREDIT: DRAW a bacterium and virus and label at least 4 structures on each (6 extra credit points). Partial credit will be given.

7TH GRADE LIFE SCIENCE

BACTERIA AND VIRUSES UNIT EXAM

/35

NAME: _____

DATE: _____

MATCHING: Please match the term with the definition. Use all letters once. (1 pt. each)

- | | |
|---|----------------------|
| <u>E</u> 1. A virus that does not become active immediately after entering the host cell | a. Host Cell |
| <u>B</u> 2. A protein that acts against a specific antigen | b. Antibody |
| <u>G</u> 3. Resistance to disease | c. Virus |
| <u>H</u> 4. Drug that block the growth and reproduction of bacteria | d. Innate Immunity |
| <u>F</u> 5. A virus that becomes active immediately after entering the host cell | e. Latent virus |
| <u>D</u> 6. Immunity that is present before exposure and effective from birth. | f. Active virus |
| <u>I</u> 7. Immunity that is present only after exposure and is highly specific. | g. Immunity |
| <u>A</u> 8. Living cell in which a virus replicates | h. Antibiotic |
| <u>C</u> 9. Tiny non-living particle, smaller than bacteria and other pathogens, which must invade living cells in order to reproduce | i. Acquired Immunity |

TRUE/FALSE: (1 pt. each)

F 1. Bacteria are Eukaryotes.

F 2. A sticky layer that surrounds the cell walls of some bacteria, protecting the cell surface, and sometimes helping to glue the cell to surfaces is the plasmid.

F 3. Bacteria are always harmful to humans.

F 4. The Capsule, Cell wall, and Cell membrane are all the SAME thing.

T 5. The Black Plague was a bacterial disease that originated in the fleas that were found on rats.

T 6. A reservoir is the place where bacteria are found naturally

SHORT ANSWER: Answer each question complete. You do not have to use complete sentences. Please write legibly.

1. List 2 differences between Prokaryotic and Eukaryotic cells. (2 pts.)
 - a. Prokaryotes do not have membrane bound organelles, whereas Eukaryotes do.
 - b. Prokaryotes are bacteria and other Archaea, whereas Eukaryotes are all other living creatures (animals, fungi, plants, protists)
2. What are the three possible shapes of a bacterium? (3 pts.)
 - a. Cocci
 - b. Bacillus
 - c. Spiral
3. What is the difference between disinfection and antisepsis? (2 pts.)
 - a. Disinfection- on Non-living surfaces
 - b. Antisepsis- on Living surfaces

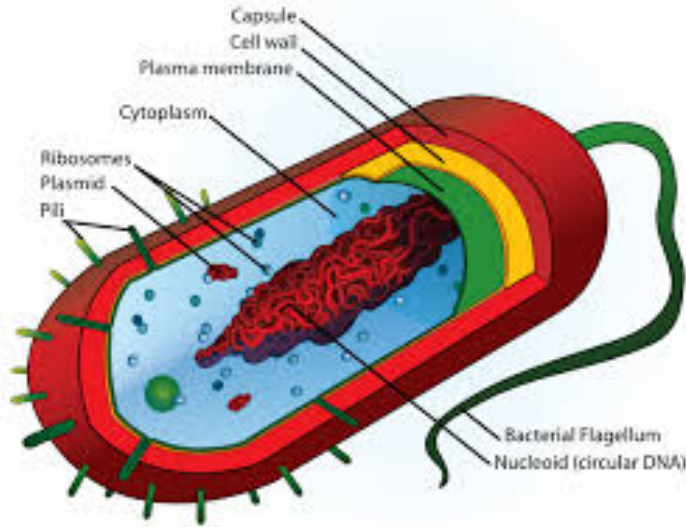
MULTIPLE CHOICE: pick one answer (1 pt. each)

1. This structure forms when the bacteria is exposed to unfavorable conditions like drought or freezing temperatures:
 - a. Endospore
 - b. Pili
 - c. Flagella
 - d. DNA
2. A harmless variant or derivative of a pathogen that stimulates a host's immune system to mount defenses against the pathogen is a:
 - a. Mutant gene
 - b. Immunity
 - c. Antibody
 - d. Vaccine
3. Bacteria that live normally in and on the body
 - a. Natural flora
 - b. Contagious
 - c. Are found in the mouth, intestine, and on the skin
 - d. Both A and C
4. Conjugation occurs when two bacteria connect through a
 - a. Flagella
 - b. Spirillum
 - c. Pilus
 - d. Plasmid
5. Which of the following is a unicellular organism?
 - a. Human
 - b. Bacteria
 - c. Mushroom
 - d. Seed

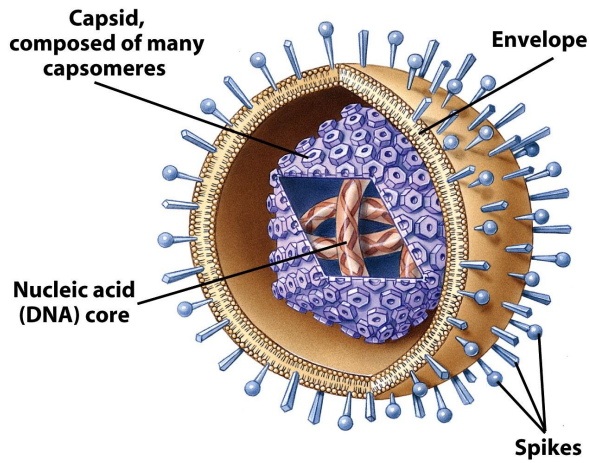
ESSAY: Compare and contrast a virus and a bacterium? Please include an Introduction paragraph, a Body portion (2 or 3 paragraphs with well supported points), and a conclusion paragraph. Have at least 3 differences and 3 similarities. Remember to use proper spelling and grammar! Write legibly. Don't forget the extra credit on the next page! (8 pts.)
 Any combination of the following points will be accepted.

Bacteria	Virus
Living	Nonliving
Binary Fission	Replicated inside a host cell
Has DNA and/or RNA	Has DNA or RNA
Capsule	Envelope and Capsid
Evades immune system	Evades immune system
Can be found as Natural flora	Never Part of natural flora
Pathogenic	Pathogenic
Can make us sick	Can make you sick

EXTRA CREDIT: DRAW a bacterium and virus and label at least 4 structures on each (6 extra credit points). Give a title to each drawing Partial credit will be given.



Bacteria



Student has to specify whether they are drawing a typical virus or a phage, but either one is fine (as long as they specify)

