

BIOLOGY - CHAPTER 16 PRACTICE TEST

Multiple Choice.

- 1) The term “pathogen” refers to:
 - a. A disease process
 - b. An organism or virus that causes disease
 - c. A toxin produced by a bacterium that causes disease
 - d. A toxin produced by a virus that causes disease

- 2) Viral structure can best be described as:
 - a. A clump of DNA surrounded by a protein coat.
 - b. A clump of RNA surrounded by a protein coat
 - c. A clump of DNA or RNA surrounded by a lipid coat.
 - d. A clump of DNA or RNA surrounded by a protein coat.

- 3) How do viruses cause disease?
 - a. Viruses release toxins that kill cells directly.
 - b. Viruses insert their genetic material into host cells and use the host cell’s organelles to reproduce.
 - c. Viruses within a host cell will burst out of the host cell and cause the host cell to die.
 - d. Both a and b are correct.
 - e. Both b and c are correct.

- 4) How do bacteria cause disease?
 - a. Bacteria release toxins that kill cells directly.
 - b. Bacteria insert their genetic material into host cells and use the host cell’s organelles to reproduce.
 - c. Bacteria within a host cell will burst out of the host cell and cause the host cell to die.
 - d. Both a and b are correct.
 - e. Both b and c are correct.

- 5) Which of the following do all pathogenic viruses need in order to reproduce?
 - a. Reverse transcriptase
 - b. The equipment of the host cell
 - c. Amino acids
 - d. A signal from other viruses

- 6) Which of the following is NOT found in bacteria?
 - a. Cell wall
 - b. Membrane bound nucleus
 - c. Ribosome
 - d. Plasma membrane

- 7) Where are you likely to find a photoautotroph?
 - a. In your refrigerator
 - b. In the darkness of the ocean
 - c. In your digestive system
 - d. Near the surfaces of lakes, streams, and oceans

- 8) When treated with Gram stain, Gram-positive bacteria appear:
- a. Purple
 - b. Pink
 - c. Yellow
 - d. Orange
- 9) A lytic cycle concludes with the:
- a. Embedding of viral DNA into the host cell's DNA
 - b. Production of a bacteriophage
 - c. Bursting of the host cell
 - d. Production of messenger RNA
- 10) Some scientists think life originated in:
- a. Dry mountaintops
 - b. Desert plains
 - c. Deep sea hydrothermal vents
 - d. Polar ice caps

Fill-in-the-blank.

- 11) Scientists have found that polypeptides will form when solutions containing high concentrations of _____ are dropped onto hot sand, clay, or rocks.
- 12) The knoblike root nodules of soybean plants are the sites where certain species of bacteria convert _____ gas in the air to compounds in the soil.

Short answer.

- 13) Why are antibiotics not always successful in treating a bacterial infection?
- 14) What is the purpose of Gram staining?
- 15) What are the four proposed steps for how life developed on Earth?

ANSWER KEY:

1 – B

2 – D

3 – E

4 – A

5 – B

6 – B

7 – D

8 – A

9 – C

10 – C

11 – amino acids

12 – nitrogen

13, 14, 15 – see study guide